Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands	)	WT Docket No. 03-66 RM-10586
	)	
Part 1 of the Commission's Rules - Further Competitive Bidding Procedures	)	WT Docket No. 03-67
	)	
Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions	)	MM Docket No. 97-217
	)	
Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico	)	WT Docket No. 02-68 RM-9718

NOTICE OF PROPOSED RULE MAKING
AND MEMORANDUM OPINION AND ORDER

Adopted: March 13, 2003 **Released: April 2, 2003**

Comment Date: 90 days after publication in the Federal Register
Reply Comment Date: 135 days after publication in the Federal Register

By the Commission: Chairman Powell, Commissioners Abernathy and Copps issuing separate statements.

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Heading Paragraph #

I. INTRODUCTION AND EXECUTIVE SUMMARY

1. By this *Notice of Proposed Rulemaking and Memorandum Opinion and Order (NPRM & MO&O)*, we initiate a comprehensive examination of our rules and policies governing the licensing of the Instructional Television Fixed Service (ITFS), the Multipoint Distribution Service (MDS), and the Multichannel Multipoint Distribution Service (MMDS) (collectively, the Services) in the 2500-2690 MHz band.[1] By this action, the Commission seeks to promote competition, innovation and investment in wireless broadband services, and to promote educational services. Additionally, the Commission also seeks to foster the development of innovative service offerings to consumers as well as educational, medical and other institutions, simplify the licensing process and delete obsolete and unnecessary regulatory burdens. We believe that it is appropriate and prudent to take this action at this time because the Services and the potential uses for the spectrum allotted to them have evolved significantly since the inception of the Services. Those uses present a significant opportunity to provide alternatives for the provision of broadband services to consumers in urban, suburban and rural areas and to improve opportunities for distance learning and telemedicine services. In addition, this proceeding has been prompted, in part, by the request of a group of representatives of licensees in the Services—namely, the Wireless Communications Association International (WCA), the National ITFS Association (NIA) and the Catholic Television Network (CTN) (collectively, the Coalition)—that we substantially change the

[1] The terms MDS and MMDS are often used interchangeably. The Commission coined the term "MDS" at a time when it was making only two channels available for the service, at 2150-2162 MHz. We began using the term "MMDS" when formulating rules making additional channels for the service available in the 2500-2690 MHz band. For the purposes of this *NPRM*, we will use the term "MDS" to signify both services. For the reasons discussed in paras. 152-153, below, we do not propose new rules affecting MDS channels in the 2150-2162 MHz band in this notice, but we intend to address requirements affecting the licensees that are presently assigned to those channels in a further notice of proposed rulemaking in this proceeding.

rules governing the Services.[2] Our proposals are intended to foster the provision of innovative and traditional service offerings to consumers as well as educational, medical and other institutions, to simplify the licensing process, and to delete obsolete rules and unnecessary regulatory burdens.

2. The rule changes proposed in this *NPRM* would facilitate the provision of high-speed data and voice services accessible to mobile as well as fixed users on channels that today are used primarily for one-way video operations to fixed locations.[3] These changes would ultimately affect between 142 and 190 MHz of spectrum, depending upon which of the alternative sets of rules proposed in this Notice are adopted. We emphasize, however, that we do not intend to evict any incumbent licensees from the affected band if they have been in compliance with our rules and continue to comply with our rules when we modify or augment them nor do we intend to undermine the educational mission of ITFS licensees. Far from evicting existing licensees, we anticipate that the streamlined regulations and revised spectrum plan adopted in this proceeding will facilitate the provision of advanced wireless communications services by incumbent licensees.

3. The following is a summary of our major proposals and determinations. In the *NPRM*, we:

- Seek comment on whether and how to reconfigure the 2500-2690 MHz band;
- Seek comment on the best means of ensuring the efficient utilization of unassigned ITFS spectrum, including geographic area licensing and unlicensed operation;
- Propose to convert site-by-site licenses of MDS and ITFS incumbents to geographic service areas;
- Seek comment on how best to promote increased access to and efficient utilization of ITFS spectrum;
- Propose technical rules to increase licensee flexibility and protect incumbent operations in the 2500-2690 MHz band;
- Propose technical and service rules for mobile operations;
- Propose to simplify and streamline the licensing process for the Services;
- Propose application filing and processing procedures to facilitate implementation of the Services into the Universal Licensing System (ULS) administered by the Wireless Telecommunications Bureau; and

[2] A Proposal for Revising the MDS and ITFS Regulatory Regime, submitted by the Wireless Communications Association International, Inc., the National ITFS Association and the Catholic Television Network, RM-10586 (filed Oct. 7, 2002). WCA is the trade association of the wireless broadband industry. NIA is a non-profit, professional organization of ITFS licensees, applicants and others interested in the ITFS. CTN is an association of Roman Catholic archdioceses and dioceses that operate many of the largest parochial school systems in the United States. These entities represent that the proposals contained in the paper reflect a consensus among the organizations concerning rule changes for the 2500-2690 MHz band. *See* Coalition Proposal at 1, n.1.

[3] Two-way data and mobile communications are permissible in the 2500-2690 band under existing rules, but the existing regulatory structure has limited the ability of operators to deploy two-way services and made it nearly impossible to provide mobile services.

- Propose to consolidate all service-specific rules for the Services under Parts 27 and 101 but seek comment on alternatives.

4. In the *MO&O*, we:

- Temporarily suspend, until the completion of this rulemaking proceeding, acceptance of applications for new ITFS licenses and applications to amend or modify either ITFS or MDS stations in the 2500-2690 MHz band, subject to certain exceptions; and

- Suspend the current construction deadline for MDS and ITFS authorization holders until the completion of this rulemaking proceeding.

5. In addition, we incorporate the dockets of two ongoing Commission proceedings into this *NPRM & MO&O* because they pertain to the Services.[4] In MM Docket No. 97-217, we address a minor issue concerning response stations that are not engaged in communications with their associated hubs to restrict their field strengths. In WT Docket No. 02-68, we propose to establish a Gulf of Mexico service area for the Services and issue licenses on that basis.

II. BACKGROUND

A. Establishment and Evolution of the Services

6. Prior to 1963, the Commission allocated the 2500-2690 MHz band to the Fixed Service for shared use by Operational Fixed Service (OFS) stations and international control stations.[5] The traditional Fixed Service use of this band was primarily private microwave communications uses such as multichannel voice and data circuits.[6]

7. In 1963, the Commission established ITFS in the band on a shared basis with existing Fixed Service stations.[7] When the Commission established ITFS, it indicated that the service was envisioned to be used for transmission of instructional material to selected receiving locations in accredited public and

[4] *See* Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico, *Notice of Proposed Rulemaking,* WT Docket No. 02-68, 17 FCC Rcd 8446 (2002) (*Gulf Notice*); *see also,* Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order on Further Reconsideration and Further Notice of Proposed Rulemaking*, MM Docket No. 97-217, 15 FCC Rcd 14,566 (2000) (*Two-Way FNPRM*).

[5] Amendment of the Commission's Rules With Regard to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service; and Applications for an Experimental Station and Establishment of Multi-Channel Systems, *Report and Order*, 48 Fed. Reg. 33873 ¶ 8 (1983) (*1983 R&O*).

[6] *See 1983 R&O*, 48 Fed. Reg. 33873 ¶ 12. Other Part 101 licensees have been authorized to use the band by waiver. *See* Applications of Nevada Bell for Construction and Authorization in the Point-to-Point Microwave Radio Service and Request for Waiver of the Rules, *Memorandum Opinion and Order*, 3 FCC Rcd 7217 (CCB and MMB 1988)

[7] *See* Educational Television *Report and Order*, Docket No. 14744, 39 FCC 846 (1963) (*MDS R&O*), *recon. denied*, 39 FCC 873 (1964) (*ETV Decision*).

private schools, colleges and universities for the formal education of students.[8] It also permitted ITFS licensees to use the channels for incidental purposes. These incidental purposes included the transmission of cultural and entertainment material to those receiving locations; the transmission of special training material to selected receiving locations outside the school system such as hospitals, nursing homes, training centers, clinics, rehabilitation centers, commercial and industrial establishments; the transmission of special material to professional groups or individuals to inform them of new developments and techniques in their fields and instruct them in their use; and to perform other related services directly concerned with formal or informal instruction and training.[9] In addition, when the ITFS facilities were not being used for such incidental purposes, the licensee could use them for administrative traffic (*e.g.*, transmission of reports, assignments and conferences with personnel);[10] however, individual stations, or complete systems could not be licensed solely for handling administrative traffic.[11]

8. In an effort to promote the development of ITFS during its infancy, the Commission in 1963 restricted the authorization of new OFS stations for three years except for modifications or expansions of existing stations, or for the use of the band by OFS eligible entities for television transmission in accord with ITFS technical standards.[12] The Commission placed this restriction on new OFS stations because it intended to observe the amount of use of these channels by educators and determine what course of action to take to encourage the fullest development of the 2500-2690 MHz band at the end of the three-year period.[13] Based in part on those observations, in 1971 the Commission designated twenty-eight 6-megahertz channels in this band and the associated response (R) channels[14] exclusively for ITFS use.[15]

9. In 1974, the Commission established MDS as a new common carrier service and allotted the 2150-2160 MHz band for such use.[16] The Commission anticipated that the MDS spectrum would be used

[8] *See 1983 R&O,* 48 Reg. Fed. 33873, 33875 ¶ 9 *citing ETV Decision*, 39 FCC 846, 853 ¶ 25.

[9] *Id.*

[10] *Id*.

[11] *Id*.

[12] *See 1983 R&O*, 48 Fed. Reg. 33873, 33875 ¶ 8, *citing ETV Decision* 39 FCC 846.

[13] *Id*. This review of the use of the band was delayed because educational interests encountered problems in preparing, funding, implementing and developing operational expertise with regard to ITFS.

[14] Each of the six megahertz channels in the 2500-2690 MHz band has an associated 125 kilohertz response channel. The response channels are narrowband audio channels located in the 2686-2689.875 MHz segment of the band and generally used with the associated primary 6-megahertz channel for two-way communications (*e.g.,* talk-back capability from remote sites such as classrooms).

[15] *See* Amendment of Parts 2 and 74 of the Commission's Rules and Regulations to Establish a New Class of Educational Television Service for the Transmission of Instructional and Cultural Material to Multiple Receiving Locations on Channels in the 2500-2690 MHz Frequency Band, Amendment of Parts 81, 87, 89, 91, and 93, *Second Report and Order*, Docket No. 14744, 30 F.C.C.2d 197 ¶ 12 (1971) (*MDS 2nd R&O*).

[16] Amendment of Parts 1, 2, 21, and 43 of the Commission's Rules and Regulations to Provide for Licensing and Regulation of Common Carrier Radio Stations in the Multipoint Distribution Service, *Report and Order*, Docket No. 19493, 45 FCC 2d 616 (1974), *recon. denied*, 57 FCC 2d 301 (1975) (*1974 R&O). See also 1983 R&O,* 48 Fed. Reg. 33873 ¶ 5. Amendment of Parts 2 and 74 of the Commission's Rules to Establish a New Class of Educational Television Service for the Transmission of Instructional and Cultural Material to Multiple Receiving (continued….)

for the common carrier distribution of television programming from a central location to numerous points selected by the common carriers' subscribers, sometimes referred to as wireless cable.[17] The Commission allotted two 6 MHz channels (2150-2162 MHz) in fifty of the largest metropolitan areas (referred to as MDS Channel Nos. 1 and 2).[18] In the rest of the country, only ten megahertz of spectrum is allotted to MDS in this band —namely, Channel No. 1 (2150-2156 MHz) and Channel No. 2A (2156-2160 MHz).

10. In 1983, in response to the demand for additional spectrum for delivery of video entertainment programming to subscribers, the Commission reallotted eight of the ITFS channels and associated (R) channels (E and F Channels) for MDS.[19] In reaching this decision, the Commission determined that the ITFS spectrum was underutilized given that there were a substantial number of unused ITFS channels in many areas of the country, with several states having no ITFS licensees.[20] It appeared that, while some growth in the ITFS service would occur, this growth was unlikely to exhaust all of the ITFS spectrum.[21] In 1983, the Commission also began allowing ITFS licensees to lease excess capacity on their facilities to commercial entities.[22] Following that decision, there was a significant increase in the number of applications filed for new ITFS facilities.[23] In 1985, the Commission amended its rules to relax the restrictions governing the leasing of excess capacity to commercial providers.[24] For example, the Commission reduced the educational obligations of ITFS operators to a minimal level,

(Continued from previous page)
Locations on Channel in the 2500-2690 MHz Frequency Band, Docket No. 14744, *Second Report and Order*, 30 F.C.C.2d 197, ¶ 8 (1971).

[17] *Id*.

[18] Amendment of Part 21.703(g), and (h) of the Commission's Rules, *Memorandum Opinion and Order*, 47 F.C.C.2d 957 (1970).

[19] Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service; Inquiry into the development of regulatory policy with regard to future service offerings and expected growth in the Multipoint Distribution Service and Private Operational Fixed Microwave Service, and into the development of provisions of the Commission's Rules and Regulations in regard to the compatibility of the operation of satellite services with other services authorized to operate in the 2500-2690 MHz band; Amendment of Part 21 of the Commission's Rules to Permit the Use of Alternative Procedures in Choosing Applicants for Radio Authorizations in the Multipoint Distribution Service; Petition for Rulemaking filed by Microband Corporation of America to amend Section 21.901 of the Commission's Rules and Regulations, *Report and Order*, Gen Docket No. 80-112 and CC Docket No. 80-116, 94 F.C.C.2d 1203 (1983) (*Allocation R&O*).

[20] Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service, *Report and Order*, 94 F.C.C.2d 1203 ¶ 4 (1980).

[21] *Id*.

[22] Amendment of the Commission's Rules With Regard to the Instructional Television Fixed Service, the Multipoint Distribution Service, and Applications for an Experimental Station and Establishment of Multi-Channel Systems, *Report and Order*, 94 F.C.C.2d 1203 (1983) (*First Leasing Decision*).

[23] *See* paras. 113-118 for further discussion of leasing practices and issues.

[24] Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service, *Second Report and Order*, 101 FCC 2d 50, 87 ¶ 95 (1985).

ultimately allowing them to lease all but a small proportion of their capacity to commercial operators.[25] While the ITFS community requested that twenty-five percent be required to be used for educational purposes or available for recapture for educational purposes, the Commission decided to allow ITFS licensees to reserve only five percent for educational purposes.[26] In 1987, the Commission allowed MDS operators to elect non-common carrier (and non-broadcast) status, leaving them subject to regulation pursuant to Part 21 of the Commission's Rules and the general provisions of Title III of the Communications Act of 1934, which apply to all radio station licensees.[27] The same year, the Commission eliminated the time-of-day restrictions on leasing ITFS spectrum and authorized operators to use automatic switching equipment.[28] In this same general timeframe, the Commission continued to relax requirements concerning ITFS licensees leasing spectrum for MDS operations.[29]

11. For several years, the International Telecommunication Union (ITU) has been fostering the development of advanced wireless systems, commonly referred to as International Mobile Telecommunications-2000 (IMT-2000). It has developed a series of technical recommendations and has identified a number of frequency bands that could be used to implement IMT-2000 systems. The 2000 World Radiocommunication Conference (WRC-2000) identified, among other bands, the 2500-2690 MHz band for possible terrestrial IMT-2000 use.[30] WRC-2000 also adopted language stating that a country may use any of the bands identified for IMT-2000, that IMT-2000 bands may also be used by other services that have allocations in those bands, and that IMT-2000 services do not have priority over other allocated services.[31] Study and implementation of IMT-2000 is ongoing within Working Party 8F (WP 8F) of the ITU-R.

12. WP 8F has developed a revision to Recommendation ITU-R M.[1036-1] that presents recommended frequency arrangements for IMT-2000 in the bands identified by the ITU. It is expected that this revision will be considered for adoption by the upcoming meeting of the Radio Assembly which

[25] *See* para. 109, *infra*.

[26] *See* Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order*, 13 FCC Rcd 19112, 19157 ¶¶ 86-87 (1998).

[27] Multipoint Distribution Service Regulatory Classification, *Report and Order,* 52 Fed. Reg. 27553 (1987) (summarizing FCC 87-210, released July 16, 1987).

[28] Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service, GN Docket No. 90-54, *Order on Reconsideration*, 6 FCC Rcd 6764, 6774 (1991).

[29] For example, the Commission eliminated the requirement that ITFS licensees fulfill their minimum educational usage obligations by transmitting such content on their own stations, allowing them the option of transmitting it on other licensees' ITFS or MDS stations. *See Two-Way R&O*, 13 FCC Rcd at 19165-19166 ¶¶ 100-101.

[30] *See Final Acts of the World Radiocommunication Conference* (*Istanbul, WRC-2000*). At WRC-2000, the United States proposed that the 698-960 MHz, 1710-1885 MHz, and 2500-2690 MHz bands be identified for the terrestrial component of IMT-2000 and other advanced communication applications. During preparations for WRC-2000, the United States committed to studying the feasibility of using all or parts of these bands for IMT-2000.

[31] *Id. See* also RR 5.384A in the ITU Radio Regulations, Edition of 2001, Geneva.

meets just prior to WRC-2003. Concerning the 2500-2690 MHz band, the revision to the recommendation contains only scenarios for possible frequency arrangements, as this band is currently being considered by some administrations for additional IMT-2000 requirements that cannot be met in lower frequency bands.

13. In this regard, on November 15, 2002, the Electronic Communications Committee (ECC), of the European Conference of Postal and Telecommunications Administrations, adopted Decision 6, wherein it designated the 2500-2690 MHz band for IMT-2000 use. The band is to be made available to IMT-2000 by 1 January 2008. Through a future ECC Decision, slated for the end of 2004, a detailed frequency arrangement (band plan) is to be developed. In ITU Region 2, The Inter-American Telecommunication Commission (CITEL) Permanent Consultative Committee III: Radiocommunications (PCC.III) has also been developing, for the Americas, options for IMT-2000 band pairings based on the bands identified for IMT-2000 by the ITU. Since many CITEL Administrations use the 2500-2690 MHz band for the fixed service and have no plans to use it for IMT-2000, the 2500-2690 MHz band was not included in recently approved Recommendation 70, *Frequency Arrangements For IMT-2000 In The Bands 806 To 960 MHz, 1710 To 2025 MHz And 2110 To 2200 MHz*.

14. In 1991, in an effort to provide more spectrum for multichannel video operations, the Commission reallotted three 6-megahertz channels in the 2500-2690 MHz band (H channels) from the OFS for MDS.[32] The Commission, however, did reallocate the response channels associated with the three H channels, as well as the response channels associated with the E3, E4, F3, and F4 MDS channels to the OFS.[33] The net result of these reallocations was to provide an allocation of 120 MHz, or 20 6-MHz main station channels, to ITFS, and 66 MHz, or 11 main station channels, to MDS in the 2500-2690 MHz band. In addition, the MDS service has four 125-KHz response channels (a total of 0.5 MHz), and ITFS has 20 response channels (a total of 2.5 MHz).[34] As noted above, OFS has seven response channels (a total of 0.875 MHz). The remaining spectrum is either allocated for the MDS Channel 1 (2150-2156 MHz associated response channel or is unassigned (2689.875-2690 MHz)). Overall, the allocation for MDS amounts to 66.5 MHz and the allocation for ITFS amounts to 122.5 MHz.

15. The Commission added the mobile service allocation to this band, to provide additional

[32] Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, and Cable Television Relay Service, *Second Report and Order,* Gen Docket No. 90-54, 6 FCC Rcd 6792 (1991), *recon. denied,* 7 FCC Rcd 5648 (1992). In the *First Report & Order* in this proceeding, the Commission made MDS operators eligible to use microwave frequencies in the Cable Television Relay Service (CARS). Amendment of Parts 21, 43, 74, 78 and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multi-Channel Multipoint Distribution Service, Instructional-Television Fixed Service, and Cable Television Relay Service, *Report and Order*, 5 FCC Rcd 6411, 6423 (1990). CARS is primarily a service for carrying video. Amendment of Eligibility Requirement in Part 78 Regarding 12 GHz Cable Television Relay Service, *Report and Order*, 17 FCC Rcd 9930, 9945-6 (2002). ITFS operators are not eligible for CARS licenses, except in very limited circumstances. 47 C.F.R. § 78.13(e).

[33] *Id.* The specific response channels are centered on 2686.9375, 2687.9375, 2688.5625, 2688.6875, 2688.9375, 2689.5625 and 2689.6875 MHz. *See* 47 C.F.R. § 101.147(g).

[34] The response channels associated with Channels E3, E4, F3, and F4 are allocated to the Private Operational Fixed Point-to-Point Microwave Service. *See* 47 C.F.R. §§ 74.902(c) note, 101.147(g).

flexibility to make it potentially available for advanced wireless services, including IMT-2000 and future generations of wireless systems.[35] The Commission also said that because incumbent ITFS and MMDS licensees extensively use the band the Commission would not relocate these licensees nor modify their licenses. Instead, the Commission would rely on market forces rather than making regulatory judgments about the best use of the band.[36] The Commission recognized that under current technology and service rules, fixed and mobile sharing of this band did not appear feasible, but committed to exploring service rules to permit mobile operations in a separate future proceeding.[37]

16. ITFS licenses are site-based licenses. Prior to 1995, MDS licenses were also site-based. In 1995, the Commission adopted rules to distribute unused MDS spectrum through competitive bidding.[38] The licensees who acquired their spectrum through competitive bidding are required to protect pre-existing site-based licensees.[39] Under current rules, if an incumbent site-based MDS license is forfeited, the incumbent's service area shall merge and become part of the geographic area licensee's service area.[40] The BTA authorization holder, however, cannot operate within that area until it files a long form application to operate a transmitter and the Commission grants that application.[41]

17. Recently, the Commission has provided MDS and ITFS licensees with additional technical flexibility. In 1993, the Commission allowed ITFS licensees to shift their required educational programming onto fewer than their authorized number of channels by channel loading, i.e., an ITFS licensee could move all of its ITFS program requirements onto one of its four channels so that it could lease the remaining three channels on a twenty-four-hour basis to a wireless cable operator.[42] In 1996, the Commission permitted MDS and ITFS licensees to employ digital technologies.[43] In 1998, the

[35] *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, *First Report and Order and Memorandum Opinion and Order*, ET Docket No. 00-258, 16 FCC Rcd 17,222 (2001) (*Mobile Report and Order*).

[36] *Id. a*t 2.

[37] *Id.* at 30.

[38] *See* Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, *Report and Order,* MM Docket No. 94-131, 10 FCC Rcd 9589 (1995) (*MDS Auction R&O*). In March 1996, the Commission completed an auction of MDS licenses for unused spectrum in each of 493 BTAs and BTA-like areas. FCC Fact Sheet, *Auction 6: Multipoint/Multichannel Distribution Services,* accessible on the Commission's web site at http://wireless.fcc.gov/auctions/06/factsheet.html.

[39] *See* 47 C.F.R. §§ 21.902(a)(3),(4); 21.938(b)(2).

[40] 47 C.F.R. § 21.932(a).

[41] 47 C.F.R. §§ 21.925(c)(4), 21.932(c).

[42] Amendment of Part 74 of the Commission's Rules Governing Use of the Frequencies in the Instructional Television Fixed Service, *Report and Order,* MM Docket 93-106, 9 FCC Rcd 3,360 ¶ 2. *See also* 47 C.F.R. § 74.931(e)(9).

[43] *See* Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations, *Declaratory Ruling and Order*, 11 FCC Rcd 18,839 (1996) (*Digital Modulation Declaratory Ruling and Order*).

Commission allowed MDS and ITFS licensees to construct digital two-way systems capable of providing high-speed, high capacity broadband service, including two-way Internet service via cellularized communication systems.[44] Later, the Commission established a mobile, except aeronautical mobile, allocation in the 2500-2690 MHz band.[45]

B. Spectrum Allocation and Current Band Plan for the Services

18. In the United States, the 2500-2690 MHz band is currently allocated to the fixed, mobile except aeronautical mobile, Broadcast Satellite Service (BSS), and Fixed Satellite Service (FSS) on a co-primary basis for non-Federal Government use. The Commission, however, recently proposed to delete the BSS and FSS allocations from the band in order to remove regulatory uncertainty from the 2500-2690 MHz band.[46]

19. Since January 2001, the Commission has been examining whether the 2150-2162 MHz band would be appropriate for advanced wireless services (AWS).[47] In 2002, the Commission reallocated the 2150-2155 MHz segment of this band to support new advanced wireless services.[48] The Commission stated that it would identify relocation spectrum for MDS licensees in a later, separate proceeding,[49] and has asked commenters to address the impact of reallocating this spectrum, to identify other frequency bands that could accommodate MDS services, and to comment on how the Emerging Technologies relocation procedures would apply.[50] Subsequently, on January 29, 2003, the Commission tentatively concluded that it should reallocate MDS spectrum at 2155-2160/62 MHz for new fixed and mobile

[44] Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, *Report and Order*, 13 FCC Rcd 19,112 (1998), *recon.,* 14 FCC Rcd 12,764 (1999), *further recon*., 15 FCC Rcd 14,566 (2000) (*Two-Way Order*).

[45] *See Mobile Report and Order*, 16 FCC Rcd 17,222.

[46] *See* Amendment of Parts 2, 25 and 87 of the Commission's Rules to Implement Decisions from World Radiocommunication Conferences Concerning Frequency Bands Between 28 MHz and 36 GHz and to Otherwise Update the Rules in this Frequency Range, *Notice of Proposed Rule Making,* ET Docket No. 02-305, 17 FCC Rcd 19,756 (2002).

[47] Advanced Wireless Services is the collective term we use for new and innovative fixed and mobile terrestrial wireless applications using bandwidth that is sufficient for the provision of a variety of applications, including those using voice and data (such as internet browsing, message services, and full-motion video) content. Although AWS is commonly associated with so-called third generation (3G) applications and has been predicted to build on the success of such current-generation commercial wireless services as cellular and Broadband PCS, the services ultimately provided by AWS licensees are only limited by the fixed and mobile designation of the spectrum we allocate for AWS and the service rules we ultimately adopt for the bands.

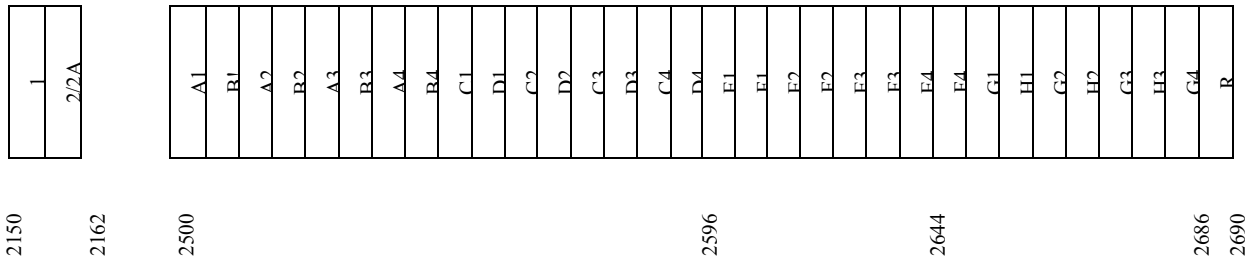
[48] *See AWS Allocation Order,* 17 FCC Rcd 23,193.

[49] *Id.* at 23,212-23,213 ¶ 41.

[50] *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 16 FCC Rcd 16,043 ¶¶ 40-41 (2001).

services, including AWS.[51]

20. Under the MDS/ITFS band plan for the 2500-2690 MHz band, there are thirty-one 6-megahertz channels, of which twenty-four have associated, 125-kilohertz (R) channels. Of the thirty-one 6-megahertz channels in the 2500-2690 MHz band, the Commission has allocated twenty channels (A, B, C, D, and G channels) for ITFS and eleven channels (E, F, and H channels) for MDS. (This does not include the two additional MDS channels at 2150-2162 MHz.). The following chart illustrates the current plan.



C. Application Processing Freezes and Filing Windows

21. In 1993, the Commission suspended the ITFS applications process and announced plans to adopt a revised process for handling such applications.[52] At the same time, the Commission noted that it would continue to accept major change proposals for ITFS applications to accommodate settlement agreements among mutually exclusive applicants.[53] In 1995, the Commission provided a five-day filing window for the filing of applications for new construction permits and for major changes to existing ITFS facilities.[54] In 1996 the Mass Media Bureau announced a sixty-day filing window for a limited class of applications, permitting the filing of ITFS modification applications and amendments to pending ITFS applications proposing to co-locate with an authorized wireless cable facility, in order, *inter alia*, to facilitate marketwide settlements.[55]

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[51] *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, *Third Report and Order, Third Notice of Proposed Rulemaking, and Second Memorandum Opinion and Order*, ET Docket No. 02-258, FCC 03-16, rel. Feb. 10, 2003.

[52] Amendment of Part 74 of the Commission's Rules with Regard to the Instructional Television Fixed Service, *Notice of Proposed Rulemaking,* MM Docket No. 93-24, 8 FCC Rcd 1275 (1993).

[53] *Id.* at 1277 n.13. *See also* Amendment of Part 74 of the Commission's Rules with Regard to the Instructional Television Fixed Service, *Order and Further Notice of Proposed Rulemaking,* MM Docket No. 93-24, 9 FCC Rcd 3348, 3354 (1994). The Commission reiterated this policy in the *Report and Order* in MM Docket No. 93-24, 10 FCC Rcd 2907, 2911 (1995).

[54] *See* Notice of Instructional Television Fixed Service Filing Window From October 16, 1995, through October 20, 1995, *Public Notice*, Report No. 23565A (rel. Aug. 4, 1995).

[55] Mass Media Bureau Announces Commencement of Sixty (60) Day Period for Filing ITFS Modifications and Amendments Seeking to Co-Locate Facilities with Wireless Cable Operations, *Public Notice*, 11 FCC Rcd 22,422 (1996).

22. The Balanced Budget Act of 1997 (Budget Act) expanded the Commission's competitive bidding authority under Section 309(j) of the Communications Act by adding provisions governing auctions for broadcast and other previously exempt services.[56] In a subsequent order, the Commission concluded that the legislation required that competing ITFS applications be subject to auction.[57] The Commission expressed concern that Section 309(j), as adopted, might not reflect Congress' intent with regard to the treatment of competing ITFS applications.[58] Given the instructional nature of the service and the reservation of ITFS spectrum for noncommercial educational use, the Commission thought it possible that Congress did not intend its expansion of our auction authority in the Budget Act to include that service. Accordingly, the Commission did not proceed immediately with an auction of ITFS applications[59] but sought Congressional guidance with regard to auctioning ITFS by proposing that Congress exempt ITFS applications from competitive bidding.[60] To date, however, Congress has given no indication that it intends to exempt ITFS applications from competitive bidding. The Commission has not yet conducted an ITFS auction.

D. Current Uses of the Band

23. Operators are providing four kinds of basic service offerings in the 2500-2690 MHz band today: (1) downstream analog video; (2) downstream digital video; (3) downstream digital data; and (4) downstream/ upstream digital data. Licensees have deployed or sought to deploy three alternative kinds of system configurations: high powered video stations, high power fixed two-way systems and low power, cellularized two-way systems.

24. Traditionally high powered video stations consist of a main transmitter located at or near the center of a 35-mile-radius protected service area (PSA) with the possibility of operating a few booster stations in the same PSA. In 1996, the Commission authorized some high powered video stations to serve Basic Trading Areas (BTAs) consisting of an aggregation of counties.[61] Homes, businesses, and institutions receive signals through outside antennas and microwave receivers. This type of system provides fixed, one-way video service, either analog or digital. Analog stations support a maximum of

[56] 47 U.S.C. § 309(j).

[57] Implementation of Section 309(j) of the Communications Act—Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Services Licenses, Reexaminiation of the Policy Statement on Comparative Broadcast Hearings, Proposals to Reform the Commission's Comparative Hearing Process to Expedite the Resolution of Cases, *First Report and Order,* MM Docket No. 97-234, GC Docket No. 92-52, and GEN Docket No. 90-264, 13 FCC Rcd 15920, 15999-16001 (1998), *recon. denied*, 14 FCC Rcd 8724, *modified*, 14 FCC Rcd 12,541 (1999), *aff'd sub nom. Orion Communications, Ltd. v. FCC*, 213 F.3d 761 (D.C. Cir. 2000).

[58] Implementation of Section 309(j) of the Communications Act—Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service, *First Report and Order*, MM Docket No. 97-234, 13 FCC Rcd 15920, 16002 ¶ 204 (1998).

[59] *Id.*

[60] Section 257 Report to Congress, *Report*, 15 FCC Rcd 15376, 15445 ¶ 183 (2000).

[61] In preparing for the 1996 MDS auction, the Commission noted that the industry was beginning to deploy digital rather than analog transmission facilities and that digital transmission would allow more flexibility to tailor signal coverage to geographic boundaries using multiple transmitting facilities. *MDS Auction Report and* Order, 10 FCC Rcd 9,589, 9,606, ¶ 29. The Commission considered alternative kinds of geographic service areas and concluded that BTAs most closely approximated the territories served by MDS operators. *Id.* at 9604-9606, ¶¶ 26-27.

thirty-three 6-MHz channels on a combination of MDS and ITFS channels, which may be licensed to and leased from multiple entities; whereas digital stations can support 180 or more channels on the same amount of spectrum. The WCA informally has estimated that 120-130 MDS/ITFS systems are transmitting video programming to subscribing members of the public and that a few additional stations deliver video programming exclusively to educational reception sites or to cable television systems for retransmission.[62] Both WCA and a number of ITFS licensees have indicated that a majority of the licensees operating these high-power stations are actively exploring conversion to low-power, cellularized operations.[63]

25. The high powered fixed two-way systems each consist of one high-powered main transmitter, multiple return-path transmitters and, in some cases, one or more booster stations. This type of system is used primarily in rural areas where population densities are much lower than those in urban areas. By September, 2002, our Broadband Licensing System showed about eighty-seven operators are deploying data-only MDS or ITFS services in the U.S. We believe that many of these licensees are offering their services in conjunction with other local licensees through integrated systems. Thus, WCA representatives have estimated that there are thirty-to-forty markets in which data-only services are being marketed, and that all but perhaps five to eight of them are using high-power technology.

26. As discussed in further detail below, most MDS operators and a substantial proportion of ITFS operators would like to deploy low power, cellularized two-way systems, because they are more spectrally efficient than high-powered systems, can support provision of high-data-rate services to a large number of subscribers, can help overcome obstacles to line-of-sight service, and can more readily support mobile or portable services.[64] Our MDS/ITFS licensing database system cannot readily show how many of these systems are currently deployed, but we believe that interference issues have severely limited licensees' ability to deploy low power services. WCA estimates that low-power, cellularized MDS/ITFS data services are being offered in perhaps five-to-eight markets.

27. By the beginning of 2002, the potential number of homes with a serviceable line-of-sight to an MDS operator's transmission facilities was about sixty-two million. Yet, by the third quarter of 2002, the number of MDS subscribers had declined to approximately 490,000 from 700,000 a year earlier.[65] Recently, some entities began using this band to provide services other than a multi-channel video service (i.e., two-way broadband services). The Coalition reports that Sprint, for example, deployed two-way broadband services in fourteen cities over the course of a year beginning in March 2000, and was signing up about 2,000 customers per month before the company halted deployment to resolve technical problems that arose with the first generation of two-way technology.[66]

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[62] In many cases, such systems use channels held by multiple licensees.

[63] *See, e.g.,* Joint Comments of ITFS Parties, filed Nov. 14, 2002.

[64] *See* sections III.C and III.D, below.

[65] *BIA Financial Network, The MMDS Industry: A Look Into the Industry's Most Significant Operators*, Sept. 2002, at 5.

[66] *Coalition Proposal* at 4. While operators have only begun to provide mobile data services on channels allocated to MDS and ITFS, a strong growth spurt in such services on other bands suggests that there is ample unsatisfied demand for mobile data. The number of wireless data users may have quintupled during 2001, to between eight and ten million subscribers. *See* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to (continued….)

28. By January 2002, Sprint and WorldCom had each invested more than $2 billion acquiring MDS licensees covering about 31 and 30 million households, respectively, and each of those companies had spent another $1 billion on system construction.[67] WorldCom was rolling out MDS high-speed Internet access in new markets, many of them rural.[68] The third largest MDS company, Nucentrix Broadband Services, Inc., was offering two-way high-speed Internet access service in Austin and Sherman-Denison, Texas, and conducting a trial of the service in Amarillo, Texas, and at least twenty-four other companies offered fixed wireless services in approximately thirty-three counties.[69] In November 2002, Clearwire Technologies, Inc., filed comments indicating that it had leased ITFS spectrum in more than 20 markets and would launch a wireless broadband Internet access service in the first of those markets in January, 2003.[70]

29. We are not aware of any current, comprehensive source of information on the nature or extent of ITFS services other than our license files. However, in response to the public notice seeking comments on the Coalition Proposal,[71] eight ITFS licensees and related organizations provided quantified information on the extent of their own services, most of them local. Various local branches of the Roman Catholic Church provide ITFS programming to 153,000 students.[72] The F Corporation and the George Mason University (GMU) Instructional Foundation provide GMU instructional programming, C-SPAN,

(Continued from previous page)
Commercial Mobile Services, *Seventh Report,* 17 FCC Rcd 12,985, 13,038 n.367 (2002) *(Seventh Report*) *citing U.S. Wireless Industry Data Sub and Revenue Projections, Interactive Mobile Investor,* Kagan World Media, Mar. 31, 2002, at 3 (7.8 million wireless Internet subscribers in the United States at the end of 2001); Yankee Group, *The Yankee Group: Highlights of New Surveys and Publications* (visited Mar. 6, 2002) http://www.yankeegroup.com/webfolder/yg21a.nsf/0/16AE3A28DBFF8EC85256B19005F8428?OpenDocument> (wireless Internet adoption was "rapidly approaching 10 million users").

[67] *Id.*

[68] *Id.*

[69] *Id.*

[70] Clearwire Technologies, Inc., Comments in RM-10586, at 2 filed November 14, 2002. On January 7, 2003, Clearwire announced the availability of its service in Jacksonville, Florida. News Release, Clearwire Launches Next-Generation Wireless Broadband Service, Jan. 7, 2003 (accessible online at http://www.clearwire.com/default.asp?NodeId=967).

[71] Wireless Telecommunications Bureau Seeks Comment on Proposal to Revise Multichannel Multipoint Distribution Service and the Instructional Television Fixed Service Rules, *Public Notice*, 17 FCC Rcd 20526 (WTB 2002) (*MDS/ITFS Comment Public Notice*). The due dates for comments and replies were initially set to November 14 and 21, 2002, but were later extended to November 21 and 29, respectively.

[72] *See* Archdiocese of Los Angeles Comments, filed Nov. 14, 2002, at 2 (50,000 Los Angeles area students); *See* Department of Education, Archdiocese of New York Comments, filed Nov. 14, 2002 (47,000 New York area students); Catholic Telemedia Network Comments, at 1-2, filed Nov. 14, 2002, (38,000 San Francisco area students); Diocese of Orange Comments, at 1, filed Nov. 14, 2002, (18,000 Orange County area students); *see also*, Diocese of Dallas Comments, at 1, filed Nov. 14, 2002, (Claims to serve more than 600,000 "constituents" but does not indicate how many use or have access to its ITFS channels). Forty-seven ITFS licensees filed joint comments that did not include quantified information on the extent of their operations. Joint Comments of ITFS Parties, filed Nov. 14, 2002.

and open meetings of the Commission on analog ITFS and MDS channels.[73] Network for Instructional TV, Inc., and its affiliates distribute educational programming and services to students and teachers through a network of twenty-three ITFS stations and over the Internet.[74] The Illinois Institute of Technology uses seven of its eight ITFS channels to provide master's degree programs, certificate programs, and courses in engineering and the sciences, business and law.[75] Stanford University transmits hundreds of engineering and science courses each year to enrolled university students over five ITFS channels. It also provides for-credit course work to enrolled students at business sites throughout the Bay Area and non-credit instructional programming to several thousand more students.[76] The Commission's database as of November 6, 2000, showed that at least one ITFS station operates in most areas of the United States and that only in the least populated areas of the country is ITFS spectrum not currently occupied.[77] At that time, the database also showed that in 49 of the 50 largest metropolitan areas that all thirty-one ITFS/MDS channels are licensed within 100 miles of the cities considered.[78]

E. The Coalition Proposal

30. On October 7, 2002, the Coalition submitted a paper entitled "A Proposal for Revising the MDS and ITFS Regulatory Regime" ("Coalition Proposal") concerning recommendations for changing the rules governing the 2500-2690 MHz band.[79] In general, the Coalition argues that the band is not being used to the extent possible[80] and that rule changes are necessary to allow new services to develop. The Coalition envisions this band being used to provide new wireless two-way broadband services (*e.g.,* provide commercial service to portable, nomadic and mobile laptops, Personal Digital Assistants (PDAs) and other non-stationary devices) where the network architecture is based on a low power cellular concept. The Coalition contends that the explosive growth of 802.11b-compliant "hot spots" demonstrates that there is demand for this sort of service and that this band could be used to provide ubiquitous service, not just at hot spots. It points out that several MDS licensees are currently test

[73] F Corp. Informal Comments, dated Nov. 8, 2002 (Provide programming to more than 1,750 offices, government agencies, law firms, trade associations, schools and universities in more than 540 buildings throughout metropolitan Washington, D.C., Maryland, and Virginia.

[74] Network for Instructional TV, Inc. and North Carolina Assn. of Community College Presidents Comments, at 1 n.1, filed Nov. 14, 2002.

[75] Illinois Institute of Technology Comments, at 3, filed Nov. 21, 2002.

[76] Stanford University Comments, at 1-2, filed Nov. 14, 2002.

[77] *Final Report: Spectrum Study of the 2500-2690 MHz Band – The Potential for Accommodating Third Generation Mobile Systems*, FCC Staff Report, March 30, 2001 at 34-35 (3G *Final Report*) (accessible on the Commission's web site at http://hraunfoss.fcc.gov/edocs public/attachmatch/DOC-211542A1.doc).

[78] *Id.* at 32.

[79] A detailed summary of the Coalition Plan is attached as Appendix C.

[80] For example, the Coalition contends that it has become clear that the growth of DBS and cable systems has "closed the window of opportunity for wireless cable" in all but a relatively few markets where wireless cable has gained a foothold. Coalition Proposal at 2. In regard to two-way services, the Coalition states because of problems associated with first generation two-way technology many in the industry have decided to halt deployment of additional first generation systems until those problems can be resolved. Coalition Proposal at 4.

marketing this new two-way broadband service.[81] It asserts, however, that a "radical reworking of the MDS and ITFS regulatory structure is needed" for such new services to develop and flourish in this band.[82]

31. The Coalition suggests a number of proposals that it believes will promote new uses of this band. A detailed summary of the Coalition Plan is attached as Appendix C. For example, it proposes establishing a new band plan to facilitate advanced low power two-way broadband systems while at the same time protecting existing high-power systems (*e.g.,* video operations). The core of its proposal segregates high-power and low-power systems into separate segments of the band to avoid mutual interference. The Coalition proposal divides the band into three major segments and three smaller segments. The three major segments would consist of the Lower Band Segment (LBS) with twelve 5.5-megahertz-wide channels extending from 2500-2566 MHz, the Mid Band Segment (MBS) with seven 6-megahertz wide channels extending from 2572-2614 MHz and the Upper Band Segment (UBS) with twelve 5.5-megahertz wide channels extending from 2620-2686 MHz.[83] Low powered operations would use the LBS and UBS while high power video operations would operate in the MBS. The three minor segments would consist of the I band at 2686-2690 (narrowband auxiliary channels) and two transition bands or guard bands (J and K), one located between the LBS and MBS and one located between the MBS and the UBS. The Coalition also proposes (1) eliminating unnecessary regulatory burdens imposed by site-by-site licensing,[84] (2) revising the technical rules to make them less complex,[85] (3) establishing a market-by-market mechanism for transitioning to the new band plan and (4) eliminating outdated

[81] Coalition Proposal at 5-7.

[82] *See* Letter from the Coalition to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission dated Oct. 7, 2002 (accompanied the Coalition Proposal).

[83] The Coalition does not fully explain why it narrowed the channels in the LBS and UBS to 5.5 megahertz. The Coalition explains that

> [a]lthough the channels in the LBS and the UBS will be 5.5 MHz wide rather than 6 MHz wide and the channels in the Transition Band will be 1.5 MHz wide, no change in the current rules affording licensees the flexibility to subchannelize and superchannelize is proposed. Therefore, even after the transition licensees can continue to utilize 6 MHz channels in the LBS, the UBS, and the Transition Bands, provided that appropriate consents are achieved.

Coalition Proposal at 13, n.32.

[84] For example, the Coalition contends that under the current licensing model, it will take substantially more applications to license a populated market for second generation MDS service (*e.g.,* low power, two-way broadband service). It estimates that it could take close to two thousand applications under the current licensing approach to fully license the band for a second generation system in just one major market. This licensing model, according to the Coalition, results in substantial transaction costs and delays of providing service. *See* Coalition Proposal at 7-8.

[85] For example, the Coalition argues that "an applicant is required by the complex 'Appendix D' interference-prediction methodology to assume in conducting analyses that each and every one of its subscribers is located at the very point most likely to cause interference to a neighbor. In other words, an applicant proposing to provide service on a given channel to 1000 subscribers simultaneously is required to assume that all 1000 subscribers will be at the very spot most likely to cause interference. Unfortunately, these hypothetical assumptions, for all practical purposes, preclude system operators from serving substantial portions of their authorized territories. *See* Coalition Proposal at 3.

regulations. On October 17, 2002, the Commission put the Coalition Proposal out on *Public Notice*.[86]

Coalition Band Plan

Channel Designation	Lower Frequency	Upper Frequency		
A1	2500.000	2505.500	LOW POWER	Channels can be used for TDD or Upstream FDD
A2	2505.500	2511.000		
A3	2511.000	2516.500		
B1	2516.500	2522.000		
B2	2522.000	2527.500		
B3	2527.500	2533.000		
C1	2533.000	2538.500		
C2	2538.500	2544.000		
C3	2544.000	2549.500		
D1	2549.500	2555.000		
D2	2555.000	2560.500		
D3	2560.500	2566.000		
J	2566.000	2572.000		Guard Band
A4	2572.000	2578.000	HIGH POWER	Channels can be used for high-power operations like existing ITFS TV.
B4	2578.000	2584.000		
C4	2584.000	2590.000		
D4	2590.000	2596.000		
E4	2596.000	2602.000		
F4	2602.000	2608.000		
G4	2608.000	2614.000		
K	2614.000	2620.000		Guard Band
E1	2620.000	2625.500	LOW POWER	Channels can be used for TDD or Downstream FDD
E2	2625.500	2631.000		
E3	2631.000	2636.500		
F1	2636.500	2642.000		
F2	2642.000	2647.500		
F3	2647.500	2653.000		
H1	2653.000	2658.500		
H2	2658.500	2664.000		

[86] *MDS/ITFS Comment Public Notice*. Fifty-three entities filed comments and eight filed reply comments. A list of commenting parties is provided in Appendix D.

H3	2664.000	2669.500
G1	2669.5000	2675.0000
G2	2675.0000	2680.5000
G3	2680.5000	2686.0000
I	2686.0000	2690.0000

III. DISCUSSION

A. Broadband Policy Goals and Objectives

32. This proceeding provides us with another opportunity to help meet our statutory duty to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms). . ."[87] This proceeding also provides us with the opportunity to further our goal to "establish regulatory policies that promote competition, innovation, and investment in broadband services and facilities while monitoring progress toward the deployment of broadband services in the United States and abroad."[88] Broadband technologies, which encompass all evolving high-speed digital technologies that provide consumers integrated access to voice, high-speed data, video-on-demand, and interactive delivery services, are a fundamental component of the communications revolution.[89] Fully evolved broadband will virtually eliminate geographic distance as an obstacle to acquiring information and dramatically reduce the time it takes to access information.[90] We intend for this proceeding to accomplish the following objectives:

33. *Promote availability of broadband to all Americans, including broadband technologies for educators.* In recent years, the MDS industry has invested several billion dollars to develop broadband fixed wireless data systems in this band, including high-speed access to the Internet for residential customers, small and medium businesses, and educational institutions.[91] Such systems offer a significant opportunity to provide competition to cable and (Digital Subscriber Line) DSL services in the provision of broadband services in urban and rural areas. In this proceeding we are seeking comment on how best to configure the 2500-2690 MHz band to enable the development of broadband service in the 2500-2690 MHz band. Broadband technologies hold some promise not only for residential and business communities, but also for American students. The American classrooms are increasingly wired, but access to broadband technologies is still far from ubiquitous. With access to broadband technologies our students and teachers will have more powerful tools with which to learn. ITFS can and should play a role in making broadband more common in our students' educational experience.

34. *Clarify and stabilize the regulatory treatment of similar spectrum-based services.* Broadband services should exist in an environment that eliminates regulations that deter investment and innovation

[87] *See* Telecommunications Act of 1996, Pub. L. 104-104, § 706(a), 110 Stat. 56 (1996); 47 U.S.C. § 157.

[88] *See Spectrum Policy Report*.

[89] *Id.*

[90] *Id.*

[91] Coalition Proposal at ii. *See also, Interim Report* at ii.

and recognizes rules that promote competition and minimize harmful interference.[92] We note that broadband providers are delivering or planning to deliver broadband service over any combination of licensed spectrum, such as 700 MHz, cellular, broadband PCS, Part 101 millimeter wave, MDS/ITFS, and unlicensed spectrum, such as 902-928 MHz, 2.4 GHz, and 5 GHz.[93] As stated above, we seek to stabilize the regulatory regime of the 2500-2690 MHz band by seeking comment on whether consolidating the Services in Part 101 of the Commission's Rules to provide regulatory parity for similar wireless services will advance the public interest in more ubiquitous availability of broadband, particularly for educational, telemedicine, and medical purposes.

35. *Facilitate development of possible alternative broadband residential facilities-based providers.* In the *Declaratory Ruling*, the Commission noted that "[t]hroughout the brief history of the residential broadband business, cable modem service has been the most widely subscribed to technology, with industry analysts estimating that approximately 68% of residential broadband subscribers today use cable modem service . . . 29% of residential broadband subscribers use DSL service, and about 3% of subscribers use various radio-based technologies."[94] As we noted above, wireless broadband service in the 2500-2690 MHz band may offer consumers another broadband alternative, which may lead to reduced prices and more competition in the delivery of high-speed internet access.[95] We believe that the changes that we are proposing to make in this proceeding, streamlining the application process, implementing geographic area licensing, modifying technical rules, and proposing rules to allow mobile operation in the 2500-2690 MHz band will enable the flexible use of the spectrum. These changes will allow for the operation of market forces, which in turn, may stimulate the development of wireless broadband services; thus giving consumers more choice in broadband providers.

B. Spectrum Policy Goals and Objectives

36. Pursuant to the Communications Act, a benchmark of national communications policy is to encourage the provision of new technologies and services to the public.[96] Based on the evolution of the Services and recent trends in consumer demand, this proceeding provides us with an opportunity to further our spectrum management goal to "encourage the highest and best use of spectrum domestically and internationally in order to encourage the growth and rapid deployment of innovative and efficient communications technologies and services."[97] The promise of emerging technologies could mean ubiquitous, mobile broadband connections.[98] We believe that it is necessary for us to take certain actions, as described in further detail below, to foster the continued development and deployment of the Services by encouraging licensees in the 2500-2690 MHz band to migrate to more technologically and economically efficient uses of the spectrum. We believe that providing these licensees with additional flexibility of use would serve the public interest and allow licensees to provide new and innovative

[92] High-Speed Access to the Internet Over Cable and Other Facilities, GN Docket No. 00-185, *Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd 4798, 4802 ¶ 5 (2002) (*Declaratory Ruling*).

[93] License-Exempt Alliance Comments at 3 to *Spectrum Policy Report*.

[94] *Declaratory Ruling*, 17 FCC Rcd at 4803-4804 ¶ 9.

[95] *See* para. 33*, supra.*

[96] See 47 U.S.C. §§ 157(a). *See also* 47 U.S.C. § 309(j)(4)(C)(iii).

[97] Federal Communications Commission, Strategic Plan FY 2003-FY 2008 at 5 (2002) (Strategic Plan).

[98] *Id.* at 14.

services, consistent with the requirements of Section 303(y) of the Communications Act.[99] Moreover, we believe that our proposals address the strong desire for a revamping of the services as expressed by representatives of the MDS and ITFS communities. In this connection, we intend for this proceeding to accomplish the following spectrum management objectives:

37. *Meet Increasing Demand for Spectrum-Based Services.* In recent years, we have seen strong demand for mobile telephone and mobile data services. In 2001, the mobile telephony sector generated more than $65 billion in revenues, increased subscribership from 109.5 million to 128.5 million, and produced a nationwide penetration rate of roughly forty-five percent.[100] Estimates of the number of mobile Internet users at the end of 2001 ranged from approximately eight to ten million, up from 2 to 2.5 million at the end of 2000.[101] In recent years, the MDS industry has invested several billion dollars to develop broadband fixed wireless data systems in this band, including high-speed access to the Internet for residential customers, small and medium businesses, and educational institutions.[102] Such systems offer a significant opportunity to provide competition to cable and Digital Subscriber Line (DSL) services in the provision of broadband services in urban and rural areas.

38. We are also cognizant that spectrum-based services can improve the ability of educators to serve America's students. The Commission is committed to exploring ways in which these bands can be used to advance the public interest in broadband services for all Americans, and therefore reaffirms our goal of ensuring that educational and medical institutions continue to have access to spectrum. In this proceeding, we hope to grant educators additional rights to make it easier for them to use our national spectrum resource.

39. *Afford Greater Flexibility to Licensees.* When we allow increased flexibility in the use of radio spectrum, we allow market forces and educational needs to move spectrum to its highest valued use.[103] In doing so, however, we must carefully calibrate the extent of flexibility that is compatible with avoiding harmful interference. Thus, we endeavor to allow the maximum extent of flexibility possible that would not impair the rights of others to offer valued services in the band.

40. *Promote Increased Access to Spectrum.* Our rules do not allow profit-making entities to hold ITFS licenses, but they do allow commercial MDS operators to finance, build, operate, and obtain leased use of ITFS transmission facilities – and provide the vast majority of the programming carried over them.[104] We undertake this proceeding to determine whether there are rules that impede the full development of the 2500-2690 MHz band.

41. *Create regulatory policies that treat similar services similarly.* In these Services where ITFS and MDS licensees are subject to different regulations, although they offer similar services, we believe

[99] 47 U.S.C. § 303(y).

[100] Federal Communications Commission, *Seventh Annual CMRS Competition Report* (FCC 02-179, rel. July 3, 2002) at 5.

[101] *Id.*

[102] Coalition Proposal at 4 *See also, 3G Final Report* at 13.

[103] *See* FCC Staff Report, *Spectrum Policy Task Force Report in ET Docket No. 02-135,* released Nov. 2002 (*Spectrum Policy Report*).

[104] 47 C.F.R. § 74.931.

that regulatory parity will promote more efficient use of the spectrum allocated for each service. Consequently, we propose to consolidate the ITFS rules in Parts 73 and 74 and the MDS rules in Part 21 into Parts 27 or 101 to foster consistency among similar wireless services.

42. *Facilitate grouping similar spectrum uses*. One of the challenges presented in managing spectrum is to promote incentives for spectrum licensees to be "good neighbors," *i.e.*, not cause harmful interference to adjacent systems. The Commission may accomplish this objective by creating an incentive for spectrum-based systems or devices to migrate to compatible bands based on marketplace forces. We note that the current configuration of the 2500-2690 MHz band in which high-power ITFS channels are interleaved with MDS channels, may inhibit the development of low power cellularized broadband uses of the MDS channels. Thus, in this proceeding we are seeking comment on reconfiguring the 2500-2690 MHz band to separate low power uses from high power uses and thereby promote the most efficient use of the 2500-2690 MHz band.

43. *Conduct effective and timely licensing activities that encourage efficient use of the spectrum.* To ensure that licensing of the 2500-2690 MHz band occurs in a rapid, routine, and ordinary manner, we propose to greatly streamline the application process for the Services, including migrating licensees to the ULS. Also, we are proposing other licensing approaches, such as licensing by geographic area, that will give licensees increased flexibility while greatly reducing the administrative burdens on both licensees and the Commission.

C. Problems with the Existing MDS/ITFS Rules

44. The Coalition has identified some of the problems with the existing MDS and ITFS rules. The Coalition Plan focuses primarily on engineering issues – accommodating the needs of two incompatible types of users that presently share a single band: one-way, relatively high-powered stations and operators that seek to maximize spectral efficiency by deploying low-powered cellular systems. The Coalition also identifies certain areas where the Commission could act to reduce administrative burdens on licensees and make the MDS/ITFS licensing process more efficient. In addition, the Coalition proposes ways to eliminate unnecessary paperwork requirements that would otherwise impose a near-impossible burden on low-power operators.

45. Both the Coalition's perception of the problems and its proposed solutions are broadly consistent with the conclusions reached in a major report our staff completed in 2001, the *3G Final Report*.[105] The most important conclusion reached in the *3G Final Report* is that traditional MDS/ITFS stations and third generation cellular systems are not compatible with each other when they are operating on the same frequencies. Their service area borders must be separated by distances exceeding 100 miles to ensure that MDS/ITFS transmitters will not cause harmful interference to Third Generation (3G) receivers.[106] Moreover, the report concludes that existing MDS/ITFS systems preclude operation of 3G systems in forty-nine of the fifty largest cities in the U.S., because all thirty-one of the MDS and ITFS channels in the 2500-2690 MHz band are licensed within 100 miles of those forty-nine cities.[107] The authors of the *3G Final Report* recognize that it would be infeasible to move the incumbent licensees to a different band. Instead, they recommend segmenting the band into separate high- and low-power

[105] The definition of "3G" is discussed at note 47, supra.

[106] *Id.* at 31.

[107] *Id.* at 32.

segments and requiring both incumbents and new applicants to conform with the new technical rules.[108] While the *3G Final Report* focuses on one particular type of new technology, its conclusions may apply with respect to any low-powered two-way service that seeks to achieve spectral efficiencies through a cellular-style configuration.

46. As discussed below, we believe that the Coalition's proposals are a major step forward as we examine this band. However, we believe that significant progress will also require a discussion of ownership and eligibility issues, transition timetables, and, perhaps, a more thorough resolution of engineering issues as well. Specifically, we seek comment on the possibility of expanding the ITFS eligibility criteria to include commercial entities, and we address the possibility of merging MDS and ITFS into a single Broadband Communications Service. We also seek comment on establishing specific deadlines for completion of the transition process, and we inquire whether we should establish a timetable for conversion of the entire 2500-2690 MHz band to low-power operations compatible with two-way, broadband cellular services. We do not propose to reclaim licenses from any incumbent operators that have complied with our existing rules and continue to comply with our rules when we change them or adopt new ones.

D. Changes to 2500-2690 MHz Band Plan

1. Background

47. ITFS and all but two of the MDS channels are located in the 2500 – 2690 MHz band. As shown in the chart below, ITFS currently has twenty 6-MHz channels, while MDS has eleven 6-MHz channels in the 2500 – 2690 MHz band. The channels are usually licensed in groups of four, but the channels in each group are not contiguous. The chart below depicts the arrangement. This band plan was designed primarily to promote wireless cable and educational television services. When ITFS was created, ITFS reception equipment could not receive adjacent channels without interference.[109] Thus, the Commission interleaved the A block channels with the B block channels, the C block channels with the D block channels, the E block channels with the F block channels and the G block channels with the H block channels.

48. This channelization framework was

Existing MDS/ITFS Band Plan

Existing Channel Designation	Lower Frequency	Upper Frequency	
A1	2500.0000	2506.0000	ITFS
B1	2506.0000	2512.0000	
A2	2512.0000	2518.0000	
B2	2518.0000	2524.0000	
A3	2524.0000	2530.0000	
B3	2530.0000	2536.0000	
A4	2536.0000	2542.0000	
B4	2542.0000	2548.0000	
C1	2548.0000	2554.0000	
D1	2554.0000	2560.0000	
C2	2560.0000	2566.0000	
D2	2566.0000	2572.0000	
C3	2572.0000	2578.0000	
D3	2578.0000	2584.0000	
C4	2584.0000	2590.0000	
D4	2590.0000	2596.0000	
E1	2596.0000	2602.0000	MDS
F1	2602.0000	2608.0000	
E2	2608.0000	2614.0000	
F2	2614.0000	2620.0000	
E3	2620.0000	2626.0000	
F3	2626.0000	2632.0000	
E4	2632.0000	2638.0000	
F4	2638.0000	2644.0000	
G1	2644.0000	2650.0000	
H1	2650.0000	2656.0000	
G2	2656.0000	2662.0000	ITFS
H2	2662.0000	2668.0000	MDS
G3	2668.0000	2674.0000	ITFS
H3	2674.0000	2680.0000	MDS
G4	2680.0000	2686.0000	ITFS
I1-I31	2686.0000	2689.8750	MDS/ITFS/ OFS

[108] *Id.* at 40-41.

[109] Coalition Proposal at 1.

appropriate for first generation technology when the Commission created ITFS and MDS, but is not optimal for digital two-way services. The Coalition notes that the existing band plan – which provides licensees with multiple interleaved 6 MHz channels rather than contiguous spectrum – was established in the early 1960s when television technology precluded the use of adjacent channels, and has remained essentially unchanged since that time.[110] The Coalition asserts that the rationale for the interleaved band plan is long gone, because MDS and ITFS systems have been demonstrating the ability to use adjacent channels for the past 20 years.[111] An interleaved channelization scheme is especially awkward when one licensee seeks to operate at low power while another, contiguous licensee continues operating at high-power, because low-power services are especially susceptible to interference from high-power transmissions on adjacent channels. The Coalition contends that the current interleaved band plan, coupled with the current adjacent channel interference protection rules, effectively precludes any licensee from providing broadband service unless consent is received from the licensee of the interleaved channel group (i.e. the licensee of the A Group cannot deploy two-way services without consent from the licensee of the B Group, and vice versa).[112] This hampers the ability of individual MDS and ITFS licensees to deploy broadband services by giving adjacent channel licensees veto power over any such offering.[113] Another consideration is that, especially when using spread-spectrum techniques to avoid interference, service providers can operate more efficiently when they have access to large blocks of contiguous spectrum. At the very least, therefore, any plan that we adopt should address the need to avoid incompatible power levels on adjacent channels, and ideally, it would provide a means by which licensees could consolidate their channels into contiguous blocks.

2. Band Plan Alternatives

49. There are two basic ways to resolve the incompatibility between high-power one-way services and low-power cellular services: separate them into separate band segments or require an across-the-board reduction in signal strengths at system boundaries. Either approach would facilitate the provision of low-power cellular services, which could include, but need not be limited to, provision of two-way voice or high-speed data services to mobile users.[114] We discuss each approach in turn.

50. The Coalition proposes to split the 2500-2690 MHz into three segments, with the middle segment being reserved for high-powered MDS and ITFS stations and the two segments above and below it reserved for low power operations. The Coalition proposes that every MDS and ITFS licensee be assigned a geographic service area. Existing circular protected service areas would be converted to geographic service areas with signal strength limits applied at their boundaries.

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[110] *Id.*, *citing* Amendment of Parts 2 and 74 of the Commission's Rules and Regulations to Establish a New Class of Educational Television Station of the Transmission of Instructional and Cultural Material to Multiple Receiving Locations on Channels in the 1990-2110 Mc/S or 2500-2690 Mc/S Frequency Band, FCC 63-722 (rel. July 30, 1963), *on recon*. 2 Rad. Reg.2d 1619 (P&F 1964); Amendment of Sec. 74.902 of the Rules Governing Instructional Television Fixed Stations to Assign Alternate Channels to Stations Operating in the Same Area Instead of Every Sixth Channel, 2 Rad. Reg.2d 1615 (P&F 1964).

[111] Coalition Proposal at 9.

[112] *Id.*

[113] *Id.* at 10.

[114] The service provider would not necessarily know, and might not need to know, whether a new subscriber was seeking to obtain mobile or fixed two-way data service. A laptop computer might be fixed part of the time and mobile at other times.

Coalition Band Plan

Lower Band (LBS)	J Band	Middle Band (MBS)	K Band	Upper Band (UBS)	I Band
2500	2566	2572	2614	2620	2686 2690

51. The Coalition proposes that the LBS be designated as the mobile station transmit band and that the UBS be designated as the base station transmit band. Such a designation would protect the passive band at 2690-2700 MHz band. We seek comment on this alternative.[115]

52. The *3G Final Report* discusses two other types of band segmentation plans.[116] Under the first type of band plan, there would be alternating bands for low power services and high power services, respectively, with guard bands in between the two 45 megahertz frequency blocks for low power services. The chart below is a pictorial representation of such a band plan:

Low Power Operations	Guard Band	High Power Operations	Guard Band	Low Power Operations	Guard Band	High Power Operations

A benefit of this option is that it would allow both types of operations to provide frequency separation between paired channel blocks for both 3G and ITFS/MDS operations for frequency division duplex (FDD) technology. Just as important, the ability to implement time division duplex (TDD) systems is not precluded by this segmentation plan. An operator may implement TDD technology on any spectrum block for which it is licensed.

53. Another option would be to separate the band into one block for low power operations and one block for high power operations, separated by a guard band. Such a band plan would look like this:

Low Power Operations	Guard Band	High Power Operations

Such a band plan would provide a large block of contiguous spectrum for both types of operations. As noted in the *3G Final Report*, such a band plan would be particularly well suited to TDD technology.[117]

54. We seek comment on various band plans or other plans that would separate the band into high power and low power operations. Commenters should address such issues as (1) the appropriate channelization plan, (2) the justification for and appropriate size of any guard bands, and what types operations could be permitted in such bands, (3) whether tighter out-of-band emission limitations could serve as an alternative to guard bands; (4) whether, and under what circumstances, licensees may disaggregate or aggregate channels, (5) any special rules to apply in a particular band segment or channel,

[115] We also seek comment on amending the Table of Allocations to adopt a US footnote listing the radio observatories that use 2655-2690 MHz on a secondary basis and 2690-2700 MHz on a primary basis.

[116] *3G Final Report* at 37-57.

[117] *Id.* at 42.

(6) whether every market requires a uniform band plan, or whether different band plans would be appropriate for different markets, and (7) whether any plan is inconsistent with the educational mission of ITFS or fails to recognize the unusual challenges faced by nonprofit educational institutions. With regard to the latter concern, we note that our *Spectrum Policy Report* raises the possibility of allowing licensees in uncongested rural areas to operate at higher power levels, provided they do not thereby generate unacceptable interference in urban areas.[118]

55. The other basic approach would be to avoid any segmentation of the band by applying an across-the-board limit on signal strengths sufficient to accommodate low power cellularized operations on all channels throughout the 2500-2690 MHz band. The Coalition Plan, or any other band segmentation plan, would require extensive, mandatory re-shuffling of channel assignments to avoid leaving high power channels adjacent to low power channels, to avoid adjacent channel interference.[119] By contrast, applying an across-the-board limitation on signal strengths could make de-interleaving a less urgent necessity and, perhaps, make it possible for acquisitions, channel trades, and other voluntary market processes to effectuate any needed consolidation of channels. We seek comment on the extent to which such a rule would reduce the need to apply mandatory channel reassignments or whether it would interfere with future uses of this spectrum by educators.

56. If we were to adopt an across-the-board reduction in signal strengths, we anticipate that we would adopt a transition period during which existing high power operations could continue to operate. At the end of the transition period, absent an agreement with affected licensees, we would require high power licensees to comply with new interference protection criteria. Alternative mechanisms for encouraging or requiring transitions to a new band plan are discussed in section III(D)(5), below. To the extent that parties file comments on these issues, we ask them to discuss the differing considerations that might apply depending upon whether we adopt a high-power/low-power band segmentation plan or an across-the-board reduction in power levels that would not require segmentation of the band.

57. From a broader perspective, we note that Coalition members appear to believe that the predominant future use of this band will be low power mobile services. On that basis, we seek comment on whether it will be necessary to reserve a portion of this band in the long term to accommodate high power services. We particularly seek comment from licensees who are currently engaging in high power operations as to their plans for the spectrum. We seek comment on the technical feasibility and cost involved in complying with technical rules that may require licensees to lower substantially their signal strength outside their protected service areas. Based upon all of those considerations, we inquire whether a uniform reduction in power levels throughout the 2500-2690 MHz band would be warranted. We inquire to what extent such a plan would disrupt existing high-powered operations, and to what extent it would produce offsetting advantages by making more channels available for low-power operations.

3. Response Channels

58. In 1991, we allocated the seven 125 kHz response channels (part of the R channels under the Coalition band plan) associated with MDS channels E3, E4, F3, F4, H1, H2, and H3 to the POFS.[120] The Coalition proposes to return these channels for MDS use.[121] We believe the proposal has merit because,

[118] *Spectrum Policy Report* at 58-60.

[119] We address the complex transitional issues implicated by that process in section III.D.6.

[120] *MDS Second R&O,* 6 FCC Rcd at 6795.

[121] Coalition Proposal at 12, n.30

as the Coalition notes, there are no OFS licensees currently on these channels, probably because they are too narrow to be usable by themselves. We ask for comment on this proposal. We also seek comment on how to assign this spectrum, if reallocated. For example, should we automatically give the channels to the geographic area licensee of the corresponding 6-megahertz main channel? The Coalition favors this approach. Another option would be to license the channels on a geographic area basis and allow any eligible entity to apply for these channels. If we received mutually exclusive applications, we would hold an auction.[122]

59. The Coalition recommends that operation on the response (R) channels be secondary to operation on the LBS, MBS, and UBS channels. In other words, they would have us provide that operation on the response channels must not cause harmful interference to operations on the LBS, MBS, and UBS channels and the R channel licensee must accept any interference caused by an LBS, MBS, or UBS licensee operating in accordance with our Rules. The MMDS Licensee Coalition opposes this recommendation and states that response channels should receive equal status.[123] We seek comment on this issue.

4. Utilization of Unassigned ITFS Spectrum

60. Under our rules, MDS and ITFS licensees and applicants must apply to license each transmitter site in the area they wish to serve (*i.e.,* site-based licensing).[124] In addition, we license MDS BTA channels on a geographic area basis.[125] The Coalition argues that elimination of site-by-site licensing and adoption of a geographic area-licensing concept for low-power operations will promote deployment of advanced low-power systems because a site-by-site licensing system is cumbersome and the transaction costs are too high to permit competitive businesses to flourish using next generation technology.[126] The Coalition contends, however, that a site-by-site licensing approach will continue to be necessary for high-powered, one-way operations, though they state that such operations could benefit from a streamlined site-by-site licensing approach.[127]

61. In general, there are two types of flexible, market-oriented approaches to spectrum allocation – the "exclusive use" model, and the "commons" model.[128] Under the "exclusive use" model, "a licensee has exclusive and transferable rights to the use of specified spectrum within a defined geographic area, with flexible use rights that are governed primarily by technical rules to protect spectrum users against interference."[129] Under the commons model, spectrum is available to all users that comply with established technical "etiquettes" or standards that set power limits and other criteria for potential

[122] *See* para. 22, *supra*.

[123] MMDS Licensee Coalition Comments at 8.

[124] *See* 47 C.F.R. §§ 74.910, 74. 911.

[125] *See MDS Auction Report and Order,* 10 FCC Rcd 9607.

[126] *See* Coalition Proposal at 19.

[127] *Id.*

[128] *Spectrum Policy Report* at 35.

[129] *Id.*

operation of unlicensed devices to mitigate potential interference.[130] These models suggest two types of approaches for allowing use of the unassigned ITFS spectrum – geographic area licensing and unlicensed operation pursuant to Part 15 of the Commission's Rules on a primary basis. We seek comment on whether one or the other of these models is the best means of ensuring the maximum and efficient use of the ITFS spectrum.

a. Geographic Area Licensing of Unassigned ITFS Spectrum

62. One means of seeking to increase the intensity and efficiency of use of the ITFS spectrum would be to license the unassigned ITFS spectrum using geographic area licensing. In other bands where we contemplated allowing the development of mobile or other wide-area services, we concluded that licensing based on pre-defined service areas (*e.g.,* geographic area licensing) poses significant advantages over site-based licensing because of the greater operational flexibility it gives licensees and the greater ease of administration for consumers, licensees, and regulators.[131] For example, geographic area licensing reduces administrative burdens and operating costs by allowing licensees to modify, move, and add to their facilities within specified geographic areas without prior Commission approval.[132] Our experience has been that wide-area licensing (as opposed to site-by-site licensing) affords licensees substantial flexibility to respond to market demand and may result in significant improvements in spectrum utilization.[133] In particular, geographic area licensing allows licensees to coordinate usage across an entire geographic area to maximize the use of spectrum in areas of highest demand. Geographic area licenses also provide licensees the flexibility to adjust spectrum usage depending upon market demands. Such adjustments may be significantly more difficult under a site-by-site licensing regime where prior Commission approval is needed before a licensee can address growth or changes in demand.

63. The facts that both ITFS and MDS channels in the same communications system and that many MDS licensees already have geographic area licenses may provide an additional reason for

[130] *Id.*

[131] Implementation of Sections 309(j) and 337 of the Communications Act: Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies and Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz, *Notice of Proposed Rulemaking*, 14 FCC Rcd 5206, 5238 ¶ 63 (1999); Amendment of Parts 2, 15, and 97 of the Commission's Rules to Permit Use of Radio Frequencies Above 40 GHz for New Radio Applications, *Second Report and Order*, 12 FCC Rcd 10,571, 10,599 ¶ 63 (1997); Revised Competitive Bidding Authority to Implement Sections 309(j) and 337 of the Communications Act of 1934, as Amended by the Balanced Budget Act of 1997*,* 64 Fed. Reg. 23571-01 (1999).

[132] *See* Implementation of Sections 3(n) and 332 of the Communications Act and Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *Third Report and Order,* PR Docket Nos. 89-553, 93-144, GN Docket No. 93-252, 9 FCC Rcd 7988, 8044. *See also*, Amendment of the Commission's Rules Regarding Multiple Address Systems, WT Docket No. 97-81, *Report and Order,* 15 FCC Rcd 11956 (2000). *See also,* Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order,* 17 FCC Rcd 1,022 (2002) (*Lower 700 MHz Band R&O*).

[133] *See, e.g.,* Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, *First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rule Making,* 11 FCC Rcd 1463 (1995) (restructuring licensing framework for 800 MHz Specialized Mobile Radio Service and adopting wide-area licensing). *See also* Gregory L. Rosston & Jeffrey S. Steinberg, *Using Market-Based Spectrum Policy to Promote the Public Interest*, 50 Fed. Comm. L.J. 87, 94 (1997).

providing ITFS operators with geographic area licenses as well. We seek comment on whether both the public and the Commission would benefit from a consistent licensing approach across the entire band. We note that this licensing approach is consistent with the operational flexibility we have afforded other entities that use spectrum to provide services such as 24 GHz, 39 GHz, PCS, 700 MHz commercial band and SMR licensees.[134]

64. We also seek comment on the possible disadvantages of licensing unassigned ITFS spectrum on a geographic area basis. Would geographic area licensing make it more difficult for educational institutions and nonprofit educational organizations to obtain access to spectrum? Would licensing ITFS spectrum on a geographic area basis result in the underutilization of spectrum because ITFS users are interested in operating in small, discrete areas?

65. If we decide to license unassigned ITFS spectrum via a geographic area overlay license, we must address three issues: what geographic areas to use for licenses, how much bandwidth should be associated with each license, and how to address interference issues near international borders. We address each of these issues below.

(i) Geographic Areas for Licenses

66. Assuming that we use a GSA approach to license this band, we must determine the appropriate size(s) of service areas on which licenses should be based. Traditionally, in establishing a service the Commission attempts to adopt optimal spectrum block size(s) and optimal GSAs, while at the same time allowing parties to aggregate initial licenses and then adjust their licenses through secondary market mechanisms such as partitioning and disaggregation, if such fine-tuning is necessary.

67. Ideally, the size(s) of the initial GSAs would match the business plans of the initial licensees. Our approach to determining optimum size(s) attempts to accommodate the likely range of applicant desires by balancing efficiency with the policy goal of disseminating licenses among a wide variety of applicants.[135] We also wish to foster service to rural areas[136] and tribal lands, and to promote investment in and rapid deployment of new technologies and services.[137] Large license areas may be preferred by incumbent providers to facilitate build-out of existing large-area systems. Large license areas also provide carriers with greater flexibility in the build-out of their services, since they are less constrained by geographical license limits and entail coordination with fewer adjacent service providers. In this regard, we seek comment on whether any problems associated with the operations of other service providers may be better addressed by licensing this spectrum in larger areas where there may be less of a need for complicated protection agreements. On the other hand, small license areas may favor smaller entities with regional business plans and no interest in providing large-area service. Rural and smaller carriers

[134] *See* Part 20 (Commercial Mobile Radio Services), Part 22 (Public Mobile Services), Part 24 (Personal Communications Services), Part 26 (General Wireless Communications Service), Part 27 (Miscellaneous Wireless Communications Services), and Part 90 (Private Land Mobile Radio Services) of our rules.

[135] *See* 47 U.S.C. § 309(j)(3)(B), (4)(C).

[136] *See* 47 U.S.C. § 309(j)(3)(A).

[137] *See* 47 U.S.C. § 309(j)(4)(C)(iii).

may prefer licensing based on small geographic areas.[138]

68. We note that our simultaneous multiple round and combinatorial (or "package") auction designs generally may offer bidders the opportunity to aggregate smaller regional licenses to cover larger geographic areas, to aggregate smaller spectrum blocks, and to pair unpaired spectrum.[139] Such aggregation at auction of smaller spectrum blocks and licenses may provide bidders with greater flexibility to implement their business plans, as compared with the traditional approach of defining optimal size. Thus, in discussing the issues of spectrum block size, geographic area, and pairing of spectrum, commenters are requested to take into consideration the various available auction designs. For example, if a commenter advocates a nationwide geographic area license, the commenter may also wish to comment on whether the auction of smaller licenses would allow bidders to aggregate licenses to create a nationwide footprint. Commenters should also discuss whether a particular band plan serves the Commission's spectrum management goals, including flexible and efficient spectrum use.[140] We are also aware that some licensees may need smaller service areas, since the most desirable or efficient scale of service area may vary according to the business plan of the potential licensee, in light of the variety of potential services that we envision will use these bands, including emerging technologies or next-generation applications. Thus, in discussing these issues, commenters should also take into consideration the possibility that we would permit post-auction partitioning of licenses for bidders whose business plans require different size geographic areas than we ultimately adopt.

69. In the past the Commission has licensed spectrum using a wide variety of GSAs, including nationwide licensing, regional licensing, local licensing, or some combination of these approaches:

[138] *See, e.g.,* Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, *First Report and Order*, 15 FCC Rcd 476, 499 ¶ 55 (2000) (*Upper 700 MHz First Report and Order)*.

[139] Package bidding may take many forms. Under the design that the Wireless Telecommunications Bureau developed for the 700 MHz band auction (Auction No. 31), bidders were not restricted to placing bids on individual licenses, but were allowed to place all-or-nothing bids on packages of licenses. Auction of Licenses in the 747-762 and 777-792 MHz Bands Scheduled for September 6, 2000; Procedures Implementing Package Bidding For Auction No. 31, *Public Notice*, 15 FCC Rcd 11,526 (2000) (describing package bidding procedures); *see also* Auction of Licenses on the 747-762 and 777-792 MHz Bands Scheduled for June 19, 2002, Round Results Process and Results Replication, *Public Notice*, 17 FCC Rcd 8,128 (2002). Under this approach, for example, a bidder desiring to inaugurate a nationwide service could bid on a package of licenses that covers the entire nation, and not face the risk of winning only some of the desired licenses and paying more than the bidder values those licenses by themselves (without the other licenses needed to provide nationwide coverage).

[140] *See* 47 U.S.C. § 309(j)(3)(D).

Number of Licenses	Description of areas	Examples
1	Nationwide	Narrowband PCS[141], 1.6 GHz band[142]
5	Narrowband PCS Regional	Narrowband PCS[143]
6	Economic Area Groupings (EAG)	220 MHz,[144] Blocks A/B/D/E, Lower 700 MHz[145]
12	Regional Economic Area Groupings (REAG)	Wireless Communication Service (WCS)[146]
51	(see note below)	A & B-Block PCS[147]
51 or 52	Major Economic Areas (MEA)	WCS,[148] 929/931 MHz Paging[149]
175	Economic Areas (EA)	220 MHz,[150] 800 MHz SMR,[151] Paging,[152] Multiple Address Systems[153]
493	(see note below)	C/D/E/F-Block PCS[154]
734	306 Metropolitan Statistical Areas (MSA) plus 428 Rural Service Areas (RSA)	Cellular,[155] Block C, Lower 700 MHz[156]

[141] *See* 47 C.F.R. § 24.102(a).

[142] *See* 47 C.F.R. § 27.6(f).

[143] *See* 47 C.F.R. § 24.102(b).

[144] *See* 47 C.F.R. §§ 90.7, 90.761(b).

[145] *See* 47 C.F.R. § 27.6(c)(1).

[146] *See* 47 C.F.R. § 27.6(a).

[147] *See* 47 C.F.R. § 24.202(a). These fifty-one areas were used under licenses issued by Rand McNally & Company for certain specific radio services, not including AWS, and are therefore not available for consideration in this proceeding. *See* Copyright Liabilities, *Public Notice*, 11 FCC Rcd 22,429 (MMB 1996).

[148] *See* 47 C.F.R. § 27.6(a). WCS MEA number 52 consists of the Gulf of Mexico.

[149] *See* 47 C.F.R. § 22.503(b)(2), (3). The fifty-one paging MEAs do not include the Gulf of Mexico.

[150] *See* 47 C.F.R. §§ 90.7, 90.761(a).

[151] *See* 47 C.F.R. §§ 90.7, 90.681.

[152] *See* 47 C.F.R. § 22.503(b)(2), (3).

[153] *See* 47 C.F.R. § 101.1315.

[154] *See* 47 C.F.R. § 24.202(b). These 493 areas were used under licenses issued by Rand McNally & Company for certain specific radio services, not including AWS. *See* Copyright Liabilities, *Public Notice*, 11 FCC Rcd 22,429 (MMB 1996).

[155] *See* 47 C.F.R. § 22.909.

[156] *See* 47 C.F.R. § 27.6(c)(2).

70. We seek comment on these and other possible approaches as applied to the 2500-2690 MHz band. As indicated in the chart above, options include:

71. *Licensing these bands on a nationwide basis*. Nationwide licensing provides the maximum advantages of large-area licenses, and it may disadvantage applicants interested in limited service areas. We seek comment on the extent to which nationwide licenses maximize the opportunity to provide the widest array of services and business plans. We also seek comment on whether nationwide licensing provides the necessary incentives for fostering the growth of existing technologies while encouraging the development of new applications. In addition, we seek comment on whether the adoption of nationwide licensing provides potential savings to the time and cost of developing applications and manufacturing equipment to operate in the spectrum at issue in this proceeding. We seek comment as to whether nationwide licensing would affect educational, telemedicine or medical institutions located in particular geographic areas.

72. *Licensing this spectrum, or a subset of this spectrum, using local area licenses*. Under this approach, the Commission could license this spectrum, or some part of this spectrum, using BTAs or aggregations of counties that approximate BTAs. The most compelling argument for that approach is that we used BTAs when auctioning unused MDS spectrum in 1996. A similar approach when auctioning unused ITFS spectrum would be consistent and would arguably make it easier for licensees to aggregate spectrum derived from MDS with spectrum derived from ITFS. We seek comment on whether local area licenses are preferable to nationwide or regional licenses, and if so which local area licensing scheme is preferable. We also seek comment on how local area licenses would affect educational, telemedicine or medical institutions seeking ITFS service.

73. *Licensing these bands using large, regional licenses*. We could license these bands using areas comparable to the six large, regional Economic Area Groupings (EAGs), the twelve slightly smaller Regional Economic Areas (REAs), or the fifty-two Major Economic Areas (MEAs). To ensure consistency with our previous MDS auction, it may be best to choose boundaries aligned with BTA boundaries, i.e., to fashion large regional GSAs comprised of multiple BTAs. While we are aware of interest in BTA-sized licenses, we seek comment on whether there is any demand for regional licenses. We seek comment on what specific large regional licensing areas would be appropriate if we choose to follow that approach. We also seek comment on whether the opportunity to aggregate regional licenses would be sufficient for those seeking to build a nationwide footprint. We also seek comment on how the use of large regional licenses would affect educational, telemedicine or medical institutions seeking ITFS service.

74. Licensing a portion of this spectrum using a nationwide or regional approach, and the remaining portion using smaller geographic areas. Commenters supporting this approach should indicate which spectrum in these bands should be licensed on a nationwide or regional basis and which spectrum should be licensed using small geographic areas. In addition, if commenters support licensing based on service areas other than those discussed above, they should discuss why other designations are more appropriate. We seek comment on how such an approach would affect educational, telemedicine or medical institutions seeking ITFS service.

75. We point out here that Rand McNally is the copyright owner of the Basic Trading Area and Major Trading Area Listings, which list the counties embodied in each BTA, as contained in Rand McNally's *Commercial Atlas & Marketing Guide*.[157] Both the WCA and the Commission have

[157] *See* Rand McNally 2003 *Commercial Atlas & Marketing Guide* at 40-43.

agreements with Rand McNally to use Rand McNally's copyright MTA/BTA listings and maps.[158] These agreements authorize the conditional use of Rand McNally's copyright material by Commission MDS licensees and requires interested persons using this material to include a legend on reproductions indicating Rand McNally's ownership, and provides for payment of a one time license fee to Rand McNally.[159] Under the terms of the WCA license agreement, license fees are to be paid within ten business days after the date that MDS BTA authorization(s) are issued by the Commission.

76. These agreements do not explicitly address ITFS channels that the Commission does not license as a result of the *MDS Auction R&O*.[160] Thus, if we select Rand McNally's BTAs as the service definition for ITFS geographic area licenses, a question arises as to whether an ITFS licensee would have to obtain a copyright license (either through a blanket license agreement or some other agreement) from Rand McNally.[161] We are concerned that an ITFS geographic area licensee might not be able to rely on the grant of a BTA-based authorization from the Commission as a defense against any claim of copyright infringement brought by Rand McNally against such grantee. Accordingly, we seek comment on whether BTAs are appropriate for ITFS.

(ii) Bandwidth for Licenses

77. We also seek comment on the appropriate size of the spectrum block or blocks to assign to ITFS geographic area licensees. The individual channels for MDS and ITFS spectrum in the 2500-2690 MHz band are six megahertz wide. One option would be to issue a single geographic area license for all unencumbered ITFS spectrum in a given market, region, or nationwide. In the case of MDS, the Commission awarded a single BTA license covering all unencumbered MDS channels.[162] A second option would be to issue separate licenses for each individual channel. A third option would be to divide the band into 24 MHz blocks, based upon the fact that many licensees are licensed for blocks of four six MHz channels. In reaching our determination, our intent is to maximize licensee flexibility, provide ITFS geographic area licensees with the spectrum they need to offer technologically advanced and innovative services, and ensure the most efficient utilization of the spectrum.

(iii) International Border Issues

78. In the Canadian and Mexican border areas, availability of this band may be restricted by a border agreement or treaty. [163] As a result, certain segments of the band may not be available in border

[158] See Letter from P. Sinderbrand to W. Caton, Acting Secretary, FCC, Jan. 11, 1996. The Commission incorporated the WCA/Rand McNally agreement by reference in § 2(a)(iii), dated November 29, 2000. On September 18, 1995, Rand McNally reached an agreement with the WCA for a blanket copyright license for the conditional use of the copyrighted material in MDS.

[159] Mass Media Bureau Reminds Licensees that Issuance of a BTA Authorization Triggers Copyright Responsibilities, *Public Notice*, 11 FCC Rcd 22,429 (1996) (*BTA PN*).

[160] *See MDS Auction R&O*, 10 FCC Rcd at 9608.

[161] See, e.g., Revision of Part 22 and 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Second Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 2732, 2735 n.3 (1997); *BTA PN*, 11 FCC Rcd at 22,429.

[162] *MDS Auction R&O*, 10 FCC Rcd 9589.

[163] *See e.g.,* Interim Arrangement Concerning the Use of the Frequency Bands 2150 – 2162 MHz and 2500 – 2690 MHz by MCS and MDS Stations Near the Canada/United States of America Border (dated Jun. 25, 2002).

areas or licensees may need to comply with limitations on power, antenna height and use which may make geographic area licenses in these areas less attractive. In other services where we have implemented geographic area licensing, we did not distinguish between border areas and non-border areas.[164] We propose to license all geographic areas on a uniform basis without regard to whether all or part of the geographic area is in a border area. Geographic area licensees could use any authorized ITFS channels subject to the relevant rules and international agreements governing this band. We will review existing agreements to see if it would be useful to initiate discussions with Canada and Mexico concerning renegotiating current agreements in the future to provide greater flexibility than what is allowed by the existing agreements. We believe that applicants are in the best position to assess the effects of any limitations on the use of ITFS channels.

b. Unlicensed Use of Unassigned ITFS Spectrum

79. Another possible means of ensuring utilization of the unassigned ITFS spectrum would be to allow unlicensed operation in the unassigned ITFS spectrum on a primary basis.[165] Unlicensed transmitters may be operated under the provisions of Part 15 of the Commission's Rules.[166] Part 15 transmitters generally operate on frequencies shared with authorized services and at relatively low power. Operation of a Part 15 transmitter is subject to the conditions that the device not cause interference to authorized services, and that the device must accept any interference received.[167] Part 15 transmitters may not operate in certain restricted bands, including 2655-2690 MHz.[168]

80. The use of unlicensed spectrum has grown substantially in the past several years. The innovation allowed by the unlicensed approach has led to an explosion in 802.11(b) wireless local area networks, for example, which has benefited consumers. The Spectrum Policy Task Force recognized that "the Commission's dedication of some lower band spectrum to unlicensed uses, e.g. 2.4 GHz, is yielding significant technological and economic benefits in the form of low-power short-distance communications and emerging mesh network technologies that should be further encouraged."[169]

81. The characteristics of the ITFS spectrum may, depending on the choices we make in this proceeding, make it an attractive choice for unlicensed use. The presence of intense unlicensed operations at 2.4 GHz may mean that equipment efficiencies could be realized for operators that engage in operations in both bands. The intense utilization of unlicensed technologies, such as wireless LANs, by educational, telemedicine or medical institutions today may mean that ITFS and unlicensed technologies can provide educations with a useful hybrid spectrum-based teaching tool.

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[164] *See e.g.,* Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Alloted to the Specialized Mobile Radio Pool, PR Docket No. 89-553, *Second Report and Order and Second Further Notice of Proposed Rule Making,* 10 FCC Rcd 6884, 6908 (1995).

[165] For further discussion concerning unlicensed operation in the 2500-2690 MHz band, including discussion of the current rules relating to unlicensed operation in these bands, see Section III.E.6, *infra*.

[166] *See* 47 C.F.R. Part 15.

[167] *See* 47 C.F.R. § 15.5.

[168] 47 C.F.R. § 15.205.

[169] *Spectrum Policy Report* at 40.

82. We therefore seek comment on the advantages and disadvantages of allowing unlicensed technologies to operate in current white space in the ITFS spectrum, and where ITFS licenses are returned to the Commission, on a primary basis. Would allowing unlicensed use of the ITFS spectrum on a primary basis provide educators with a useful new tool? Is it possible to allow unlicensed operation without undermining current ITFS operations (including educational, telemedicine or medical uses)? If so, what rules and technical requirements would be necessary to ensure sufficient interference protection to existing, licensed ITFS facilities? Should any antenna requirements be imposed? What would be the appropriate power and/or field strength limits for unlicensed transmitters operating on such a basis? Could GPS or other location techniques be incorporated into an unlicensed device so it could determine its precise location and identify licensed users in its vicinity by accessing a database? Would such an approach be reliable, and could it be combined with other methods to prevent interference to licensed services? If we ultimately revise the band plan for the 2500-2690 MHz band, particularly in a fashion segmenting low power and high power operations, is unlicensed use preferable in one portion but not the other?

5. Geographic Area Licensing for Current Licensees

a. Geographic Area Licensing for MDS BTA Authorization Holders

83. Under the current rules, qualified auction winners were granted licenses for BTAs. A BTA authorization holder may provide service within its BTA, excluding the PSA of incumbent stations and previously proposed MDS and ITFS facilities.[170] A BTA authorization holder, however, must also apply for an individual station license for each transmitter within its BTA.[171] In other services utilizing geographic area licensing, however, a geographic area licensee may generally construct a new transmitter within its licensed area and on a channel covered by its geographic area license so long as (1) the construction complies with the Commission's interference and other rules, (2) an environmental assessment is not required, (3) international coordination is not required, or (4) the proposed transmitter would not affect a radiofrequency quiet zone.[172] We believe that this approach results in efficient service to the public and fewer unnecessary regulatory burdens upon licensees and the Commission. For the reasons noted above, we believe that MDS BTA authorization holders should not be required to obtain individual station licenses for transmitters. We also see no basis for treating MDS BTA authorization holders differently than ITFS geographic area licensees.[173] Accordingly, we tentatively conclude that MDS BTA authorization holders should be allowed to place transmitters anywhere within their service area without prior authorization so long as the operation complies with the applicable service rules and that do not affect radiofrequency quiet zones or require environmental review or international coordination. We seek comment on this tentative conclusion.

84. We also propose to modify the procedures that apply when an incumbent license within a BTA is forfeited. Under current rules, if an incumbent site-based MDS license is forfeited, the incumbent's service area shall merge and become part of the surrounding BTA service area.[174] The BTA

[170] 47 C.F.R. § 21.924(c).

[171] 47 C.F.R. § 21.925(b).

[172] *See*, *e.g.*, 47 C.F.R. §§ 90.663, 101.525(a), 101.1009.

[173] *See* paras. 62 -65 *supra*, regarding geographic area licensing for unassigned ITFS spectrum.

[174] 47 C.F.R. § 21.932(a).

authorization holder, however, cannot operate within that area until it files a long form application to operate a transmitter and the Commission grants that application.[175] In other wireless services, frequencies associated with cancelled or forfeited incumbent authorizations automatically revert to the geographic license holder.[176] We believe that requiring geographic area licensees to obtain a separate authorization prior to operating within the area of a cancelled or forfeited incumbent license is an unnecessary regulatory burden and causes delays in service. Consistent with the approach we have taken in other wireless services, we tentatively conclude to modify the rules to provide that in the case where an incumbent license cancels or is forfeited, the right to operate would automatically revert to the licensee that holds the BTA license.[177]

b. Geographic Area Licenses for Site-Licensed Incumbents

85. In tandem with our proposal to use geographic areas to license ITFS spectrum, we must assess the potential impact of this proposal on incumbent ITFS licensees that have site-based licenses. Previously, when implementing geographic area licensing for spectrum that had incumbents, the Commission traditionally has used an "overlay" licensing approach where the Commission grandfathered (protected) existing constructed and operating stations[178] or provided for specified relocation periods. While an overlay approach has worked well in the past, the Coalition contends that there are inherent difficulties with an approach that allows incumbents to remain in place indefinitely because high-power video and low-power cellular systems will share this band.[179] The Coalition believes these difficulties could hinder the implementation of new advanced services in this band because most geographic area licensees and incumbents would probably use the band to provide a low-power two-way service,[180] while some incumbent licensees are using the band to provide high-power video operations (educational or commercial wireless cable).

86. Since we are proposing to protect incumbent operations on current ITFS channels, we must define the protected areas. The Coalition proposes to give each existing site-based MDS and ITFS licensees a GSA, based on the current rules.[181] In this regard, we note that applicants for new stations on ITFS channels must provide protection to incumbents based on PSAs.[182] We note that MDS incumbents

[175] 47 C.F.R. §§ 21.925(c)(4), 21.932(c).

[176] *See, e.g.*, 47 C.F.R. § 101.1331 (MAS): Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, 12 FCC Rcd 18600, 18637-8 ¶ 79 (*39 GHz Report and Order*).

[177] *See, e.g., 39 GHz Report and Order,* 12 FCC Rcd at 18637-8, ¶ 79.

[178] (*e.g.,* geographic area licensees must protect existing co-channel stations located within their geographic service area) *See* Amendment of the Commission's Rules Regarding Multiple Address Systems, WT Docket No. 97-81, 15 FCC Rcd 11,956 (2000); *See MDS Auction R&O,* 10 FCC Rcd 9589.

[179] Coalition Proposal at 10.

[180] Other licensees agree that many existing ITFS licensees will move or are contemplating moving away from traditional one-way high-power video-based operations. *See* Joint Comments of ITFS Parties at 2.

[181] Coalition Proposal at 20.

[182] 47 C.F.R. §§ 74.903, 21.902(d). Beginning on September 15, 1995, the initial service boundaries were frozen, i.e., the circular PSA boundaries were not to be changed regardless of whether or not the licensee subsequently (continued….)

that obtained their licenses prior to our 1996 MDS BTA auction have 35-mile PSAs around their main stations.[183] Except with respect to situations where MDS and ITFS PSAs overlap, we have not received many significant expressions of concern over electrical interference resulting from this approach. Therefore, we propose to provide each incumbent on a current ITFS channel and each MDS incumbent with a PSA based on a circle with a 35-mile radius around its main station, subject to the exceptions discussed below. We ask for comments on this proposal and, in addition, we inquire whether we should change the name of such areas from PSAs to GSAs. A benefit of making this change would be to allow incumbents to change the location of their transmitters without prior Commission approval.

87. In discussing the issue of protected areas for incumbents, the Coalition points out that the rules defining protected areas have changed over the years. As a result, the PSAs assigned to co-channel incumbent MDS and ITFS licensees can overlap.[184] The Coalition argues that since none of the licensees with service areas that overlap can satisfy the interference protection criteria in the overlap area, no one can operate in these areas.[185] According to the Coalition, the MDS/ITFS industry has informally developed a method for handling this problem. The Coalition notes that the general method for dividing the overlap area is to draw a straight-line (chord) beginning and ending at the two points where the protected service areas intersect.[186] This approach has the effect of drawing a boundary along the line connecting the ends of the football-shaped overlap area, with the licensees on either side agreeing to limit the interference they generate outside their boundaries. The Coalition proposes that we codify this approach.

88. The boundary-splitting proposal described above could leave some reception sites marooned on the "wrong" side of the line relative to ITFS stations from which they have been receiving service. Based on that concern, and on the fact that some registered reception sites fall outside a 35-mile radius, the Coalition proposes that we grandfather certain ITFS reception sites located outside the PSA.[187] Under the Coalition's proposal, ITFS licensees would be required to provide technical information to co-channel and adjacent channel licensees concerning the reception sites within twenty-one days of a request.[188] Generally, however, we do not protect sites outside the established protected areas in other services where

(Continued from previous page)
moved its transmitter. *Id.* An ITFS licensee's PSA includes the area within a 35-mile radius of its transmitter site plus any reception sites beyond that radius that were registered with the Commission on September 17, 1998.

[183] *See* 47 C.F.R. §§ 21.902(d), 21.933(a).

[184] Effective September 15, 1995, the Commission expanded the PSAs of incumbent site-based MDS and ITFS licensees from fifteen miles to thirty-five miles. *See* Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service, *Second Report and Order*, Gen. Docket Nos. 90-54 and 80-113, 10 FCC Rcd 7074 (1995). In doing so, it created a number of overlaps between licensees whose PSAs had not overlapped before the standard PSA radius was increased.

[185] Coalition Proposal at 20-21 (*e.g.,* the rule changes have created a "no man's land").

[186] *See* Coalition Proposal Appendix C for a detailed explanation.

[187] Coalition Proposal at 35.

[188] ITFS licensees must identify the location of such receive sites, the antenna make and model and the antenna height above ground and, if known, the adjacent channel D/U ratio that can be tolerated. *See* Coalition Proposal at 35-36.

we have implemented geographic area licensing.[189] Requiring licensees to provide such additional technical information is contrary to our goal of reducing regulatory burdens. We are also concerned that providing continued protection to out-of-area reception sites could confuse the definition of GSAs for site-licensed incumbents, whether or not we choose to allow continued high-power operations in part of the band. We invite comment on the costs versus benefits of continuing to protect reception sites that fall outside the 35-mile service areas of incumbents, or beyond boundaries established mathematically by splitting areas of overlap. Commenters supporting the Coalition's position on this issue should provide information on how many receive-only sites are located outside the PSAs of stations from which they have been receiving service. We seek comment on alternative ways of addressing this problem.

c. Gulf of Mexico Proceeding

89. *Background.* In the *MDS Report and Order*, the Commission adopted a licensing plan under which it assigned, through a simultaneous multiple round bidding process, one MDS authorization for each of the 487 BTAs and six additional geographic areas.[190] A BTA authorization holder may construct facilities to provide service over any usable MDS channels within the BTA.[191] A MDS channel is usable if the proposed station design is in compliance with the Commission's interference standards.[192]

90. The signals of a BTA authorization holder cannot interfere with any other BTA authorization holder's signals.[193] In addition, BTA authorization holders cannot interfere with the PSAs of incumbent MDS operators and ITFS licensees within their BTAs.[194] However, the BTA authorization holder may negotiate interference rights with BTA authorization holders and incumbents.[195]

91. On May 21, 1996, the Gulf Coast MDS Service Company (Gulf Coast) filed a Petition for Rulemaking requesting that the Commission amend its rules to permit licensing of MDS and ITFS spectrum in the Gulf of Mexico.[196] Specifically, Gulf Coast sought to have the Commission treat the Gulf of Mexico as one service area and to hold an auction to license service in the area. On November 23, 1998, PetroCom License Corporation (PetroCom), successor in interest to Gulf Coast, amended the

[189] Examples of services where service areas are defined exclusively on the basis of signal strength limits at geographic borders include the lower 700 MHz band (47 C.F.R. § 27.55(a)(2)), broadband PCS (47 C.F.R. § 24.236), Part 27 services in the 2305-2320 and 2345-2360 MHz bands (47 C.F.R. § 27.55(a)(1)), and Part 27 services in the 1390-1395 and 1432-1435 MHz bands (47 C.F.R. § 27.55(a) (3)).

[190] *See MDS R&O*, 10 FCC Rcd at 9608-09; *see also Gulf Notice,* 17 FCC Rcd at 8448 ¶ 7. Rand McNally defined 487 BTAs in the 1992 *Commercial Atlas and Marketing Guide*. Because Rand McNally did not include some geographic areas that were the subject of the MDS auction, those areas were added to Rand McNally's list, bringing the total number for auctioning to 493 authorizations. The six additional areas are American Samoa, Guam, Northern Mariana Islands, San Juan, Puerto Rico; Mayaguez/Aguadilla-Ponce, Puerto Rico; and the United States Virgin Islands. *Id*. at 8447 n.4. *See also* 47 C.F.R. § 21.924(b).

[191] *See MDS R&O*, 10 FCC Rcd at 9615-18; *see also Gulf Notice*, 17 FCC Rcd at 8448 ¶ 7.

[192] *See MDS R&O*, 10 FCC Rcd at 9615-18; *see also Gulf Notice*, 17 FCC Rcd at 8448 ¶ 7.

[193] *See* 47 C.F.R. § 21.902.

[194] *See* 47 C.F.R. § 21.933.

[195] *See Gulf Notice*, 17 FCC Rcd at 8448 ¶ 8.

[196] Petition for Rulemaking of Gulf Coast MDS Service Company (Gulf Coast Petition) (May 21, 1996).

petition.[197] PetroCom requested that the Commission authorize two licenses in the Gulf of Mexico and adopt eligibility restrictions to avoid excessive concentration of licenses.[198] Additionally, PetroCom asked the Commission to establish a service area in the Gulf similar to the service areas established in the *MDS Report and Order*.[199] On August 11, 1999, the Commission sought comment on PetroCom's Amended Petition.[200] On May 3, 2002, the Commission issued the *Gulf Notice* seeking comments on PetroCom's amended petition.[201]

92. In the *Gulf of Mexico MDS NPRM*, the Commission proposed to establish a GSA in the Gulf of Mexico ("Gulf Service Area").[202] The Commission proposed to adopt the same rules, with certain limitations, as those service areas established in the *MDS Report and Order*. The Commission solicited comment on the technical and economic effects of implementing the proposals.[203]

93. *Discussion.* Generally, commenters support creation of a Gulf Service Area. However, they express concern over the timing of the adoption of rules for the service area.[204] The commenters seek to delay the licensing of MDS in the Gulf of Mexico until after the Commission establishes mobile service rules,[205] as well as until we address the Coalition's proposals.[206] We note that we are proposing mobile service rules in this proceeding.[207] We believe that by addressing the use of MDS in the Gulf simultaneously with the consideration of other MDS flexibility issues that we decrease any attendant delay in the provision of service in the Gulf of Mexico. Accordingly, we disagree with the commenters that we should defer consideration of all of the issues involving the Gulf of Mexico until after adoption of

[197] Amended Petition for Rulemaking of PetroCom License Corporation (Amended Petition) (Nov. 23, 1998).

[198] *See* Pleading Cycle Established for Comments on Amended Petition for Rulemaking to Amend Parts 21 and 74 of the Commission's Rules to Permit Licensing in the Multipoint Distribution Service and the Instructional Television Fixed Service for the Gulf of Mexico, *Public Notice*, 14 FCC Rcd 13,322 (1999) (*Amended Petition PN*). PetroCom also requested that the Commission set aside one of the licenses for small businesses, streamlining of the licensing process, modification of the two-way rules for stations operating in the Gulf. *Id*.

[199] Amended Petition at 4.

[200] *Id*. The WCA opposed the Amended Petition while PetroCom, Bachow/Coastel, L.L.C. (Bachow/Coastel) and RIG Telephones Inc. d/b/a Datacom (DataCom) each filed comments on September 10, 1999. *See* reply comments on September 27, 1999. Bachow/Coastel, WCA and DataCom filed reply comments. Finally, on October 8, 1999 and November 10, 1999, WCA and PetroCom filed comments in the form of a letters. These letters were not authorized pleadings pursuant to our rules; however, in order to develop a full and complete record, they were incorporated as part of the record in this proceeding.

[201] *Gulf Notice*, 17 FCC Rcd 8446.

[202] *See Gulf Notice*, 17 FCC Rcd at 8447 ¶ 2.

[203] *Id.*

[204] PetroCom Comments at 3-5; Stratos Offshore Services Company Comments at 2-3 (Stratos Offshore); WCA Comments at 4; PetroCom Reply Comments at 1-4.

[205] *See* PetroCom Comments at 3-5; PetroCom Reply Comments at 1-4.

[206] *See* WCA Comments; Stratos Offshore Comments at 2-3.

[207] *See* para. 132, *infra*.

mobile service rules. Resolving the primary issue of whether to establish a Gulf Service Area is a preliminary step that does not have to wait for the adoption of final rules in this proceeding. As no commenter opposed the establishment of a Gulf Service Area, we adopt the proposal to create a Gulf service area. The parties who asked the Commission to establish a Gulf Service Area state that establishing such a service area would allow specialized businesses that operate in the Gulf of Mexico to obtain advanced communications services that are currently unavailable to them and that would allow these businesses to operate more efficiently.[208] The Commission has also noted in other services that creating a service area for the Gulf of Mexico region will help meet the growing communications needs of businesses operating in the Gulf.[209]

94. We note that we have incorporated, as WCA asks, the Gulf of Mexico proceeding into this comprehensive review of the entire band.[210] Although the Commission proposed to create a Gulf Service Area for MDS operations, the Commission proposed to exclude all ITFS channels from licensing in a Gulf Service area.[211] The Commission indicated that ITFS licensees have not expressed an interest in obtaining licenses in the Gulf of Mexico, the area most likely has little need for educational service, and the requested commercial use does not require the full bandwidth available in the 2500-2690 MHz band.[212] No commenter specifically addressed the Commission's proposal to exclude ITFS channels.[213] In order to ensure that we have a full and complete record, we seek further comment on whether we should reallocate ITFS channels in the Gulf Service Area for other uses. We specifically seek comment on whether we should consider unlicensed uses.

95. Unlike BTAs established by Rand McNally, the Gulf Service Area does not have a significant population center and is based primarily on the geographic confines of the Gulf and on the commonality of commercial interests of the potential users of any service provided.[214] Thus, the Commission proposed to use the same boundary definitions for this Gulf Service Area as adopted in the *WCS R&O*.[215] As a result, the Commission proposed that land-based license regions abutting the Gulf of Mexico will extend to the limit of the territorial waters of the United States in the Gulf of Mexico, which is the maritime zone that extends approximately twelve nautical miles from the United States coastline.[216] Beyond that line of demarcation, the Commission created a Gulf Service Area, which extended from that line outward to the

[208] *See* Gulf Coast Petition at 4.

[209] *See, e.g.,* Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS"), GN Docket No. 96-228, *Report and Order*, 12 FCC Rcd 10785, 10816 ¶ 59 (1997) (*WCS R&O*).

[210] *See* WCA Comments at 7.

[211] *See Gulf Notice*, 17 FCC Rcd at 8450 ¶ 13.

[212] *Id*. at 8450 ¶ 13.

[213] We note that PetroCom's Comments and Reply Comments refer to MDS/ITFS spectrum. PetroCom Comments at 5; PetroCom Reply Comments at 2.

[214] *See Gulf Notice*, 17 FCC Rcd at 8452 ¶ 16.

[215] *Id*. at 8453 ¶ 18.

[216] *Id*.

geographic limits consistent with international agreements.[217]

96. Although WCA supports the Commission's proposal to establish the demarcation line of the Gulf Service Area at twelve nautical miles from the coastline,[218] PetroCom maintains that the better approach is to employ the boundaries used for cellular service in the Gulf.[219] In the *Gulf Cellular Order*, the Commission established the Gulf Service Area boundary as the land-water line. PetroCom argues that because current MDS and ITFS licensees are providing fixed services that they do not require protection beyond the shore.[220] Additionally, PetroCom asserts that allowing land based MDS/ITFS operations to extend into the Gulf of Mexico will create interference issues for Gulf operations and discourage Gulf licensees from fully developing their systems.[221] Moreover, PetroCom asserts that this definition of the inner boundary of the Gulf Service Area is consistent with our Rules, which base BTA boundaries on market areas defined by Rand McNally, which follow county lines.[222] We seek comment on where to establish the demarcation line for the Gulf Service Area.

97. For the most part, commenters to this proceeding did not address the Commission's proposals with regard to licensing MDS in the Gulf of Mexico. Instead, commenters focused their remarks on requesting a delay in the consideration of the issues presented in the *Gulf of Mexico MDS NPRM* until after the Commission considered the Coalition's proposal to transform the service. Accordingly, we do not believe the record has developed satisfactorily to resolve issues concerning the amount of spectrum to license in the Gulf Service Area, competitive bidding, partitioning and disaggregation, interference protection requirements, construction period, and license term. We invite commenters to address these issues in the broader context of this comprehensive proceeding. However, where differences exist with regard to the treatment of Gulf licenses, commenters should explain those differences and expound upon the rationale for the different treatment.

6. Transition to New Band Plan

98. An important issue relating to the adoption of any new band plan is the mechanism to use to transition existing licensees to a new band plan. There are four alternative kinds of transition mechanisms that are relevant in this context:[223] expanded rights overlay licenses combined with mandatory relocation of incumbents; expanded rights overlay licenses with grandfathering of incumbents; expanded rights overlay licenses combined with voluntary band-clearing restructuring incentives for incumbents; and expanded rights granted to incumbent licensees under existing licenses.[224] The Coalition's proposal most

[217] *Id*.

[218] WCA Comments at 6.

[219] PetroCom Comments at 5-6 *citing* Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico, *Report and Order*, 17 FCC Rcd 1209 (2001) (*Gulf Cellular Order*); PetroCom Reply Comments at 4-6 *citing Gulf Cellular Order*, 17 FCC Rcd at 1219 ¶ 31.

[220] PetroCom Comments at 6.

[221] PetroCom Reply Comments at 5.

[222] PetroCom Comments to the Amended Petition at 4.

[223] *Spectrum Policy Report* at 49.

[224] *Id.*

nearly resembles the second of those four approaches, though it reflects elements of the fourth approach as well.

99. The Coalition proposes that we rely on a combination of regulatory and market forces to effect the transition to its proposed band plan. The Coalition recommends a market-by-market transition process to the new band plan that allows MDS and ITFS licensees to continue to operate pursuant to the current rules until an MDS or ITFS licensee or lessee (called a "proponent") triggers the transition process.[225] In general, the Coalition would require the Proponent to fund any conversion costs incurred by ITFS operators but would require MDS operators to pay their own conversion costs.[226] In addition, any party offering a commercial service using MDS or ITFS channels would be required to reimburse the Proponent for its *pro rata* share of the cost of transitioning the facilities that it uses and the cost of transitioning facilities associated with any overlapping transition impact area.[227] A Proponent would be permitted, at its sole discretion and at any time, to trigger the transition process with respect to any MDS or ITFS licensee that has a GSA located in whole or in part within 150 miles of any portion of its GSA.[228] At any time during the transition planning period, the Proponent would be permitted, in its sole discretion, to decide not to proceed with the transition process in whole or in part. [229] The Coalition plan would require the Commission to enact detailed rules concerning the mechanisms of the transition process and set forth nine safe harbors describing proposals that licensees subject to transition would have to accept from proponents.[230] The Coalition does not recommend that we set any fixed deadlines.

100. We seek comment on whether we should impose a date certain for completing the transition process if we adopt a process resembling that proposed by the Coalition. The Coalition recognizes that the absence of specific deadlines in its proposal could leave hold-out licensees in a position to obstruct the re-channelization process, but urges that we adopt a very detailed list of criteria defining what sorts of proposals ITFS licensees must accept if Proponents offered to implement them or pay for their implementation.[231] This proposal resembles the process we have applied for clearing incumbents from the upper 200 channels in the 800 MHz band to make way for Specialized Mobile Radio operators licensed to Economic Areas.[232] However, the Coalition proposes a far more detailed set of criteria for mandatory negotiations between MDS and ITFS operators, and does not provide for reimbursement of MDS operators undergoing involuntary conversion to lower signal strengths.

101. As an alternative, we ask whether we should impose a date or dates certain by which all licensees must comply with our new interference rules. In that regard, an *ad hoc* group of MMDS licensees has expressed concern that the detailed transition rules that the Coalition proposes as an alternative to specific deadlines would be cumbersome. These licensees view the plan as requiring

[225] A detailed description of the Coalition transition process is contained in Appendix C.

[226] Coalition Plan, Appendix B at 5.

[227] *Id.*, Appendix B at 28-29.

[228] *Id.*, Appendix B at 13.

[229] *Id.*, Appendix B at 14.

[230] *Id.,* Appendix B at 21-28.

[231] The Coalition does not propose that any MDS licensees receive compensation from Proponents.

[232] *See* 47 C.F.R. § 90.699.

complex reimbursement schemes, 150-mile daisy chains and other complications resulting from the voluntary market-by-market approach.[233] They assert that the net result of adopting the Coalition Plan would be to delay the transition rather than to expedite it because the parties would be embroiled in constant bickering over the terms of transition and who should be responsible for what costs.[234]

102. Another alternative would allow incumbents to bargain freely for the best inducements they can obtain from Proponents to convert their operations prior to a deadline for conformance with the new band plan, while requiring incumbents to fund their own conversions if they do not accept a Proponent's offer to fund the conversion ahead of time. Under such an approach, the incumbent's bargaining leverage would be greater the further in the future we established the conversion deadline, and it would gradually diminish as the deadline approached. We believe that we have the legal authority to apply such deadlines pursuant to Section 316(a) of the Communications Act, as amended, which permits us to modify a license or construction permit if such action is in the public interest.[235] Section 316(a) requires that we notify the affected stations of the proposed action, the public interest reasons for the action, and afford at least thirty days to respond. This procedure is now set forth in Section 1.87 of our Rules.[236] Licenses may be modified through rule making,[237] as we did when establishing the cellular telephone service.[238] We seek comment on alternative means by which we might lawfully and efficiently implement a schedule for modifying existing MDS and ITFS stations, such as the adoption of a single deadline by rulemaking rather than through station-by-station processes.

103. A second possible approach would be to adopt a three-phase transition process: a voluntary negotiation period, during which incumbents could bargain freely for the best inducements they could obtain from Proponents, followed by a mandatory negotiation and conversion phase, during which Proponents could compel incumbents to reduce their signal strengths by offering to fund their conversions, based on specific criteria to be defined in our rules. In the final stage, Proponents would be entitled to compel incumbents to take whatever steps are necessary to reduce their signal strengths at the incumbents' own expense. Such an approach would resemble the band-clearing procedures that we adopted for terrestrial fixed microwave services in the bands that we reallocated to PCS,[239] except that

[233] Comments of MMDS Licensee Coalition ("MMDS Licensees"), filed November 14, 2002, at 3.

[234] *Id*.

[235] 47 U.S.C. § 316(a). We note that converting existing licensees to geographic service area licenses would eliminate the need to modify authorizations for individual transmitters.

[236] 47 C.F.R. § 1.87.

[237] *See* Amendment of Part 22 of the Commission's Rules to Provide for Filing and Processing of Applications for Unserved Areas in the Cellular Service and to Modify Other Cellular Rules*, Notice of Proposed Rulemaking,* 5 FCC Rcd 1,044, 1,048 ¶ 25 (1990), *citing WBEN, Inc. v. United States*, 396 F.2d 601 (2d Cir. 1968); *American Airlines, Inc. v. CA*B, 359 F.2d 624 (D.C.Cir. 1966); *Upjohn Co. v. Food and Drug Admin.*, 911 F.2d 1583 (D.C.Cir. 1987).

[238] *See generally*, Cellular Communication Systems (Cellular Systems), *Report and Order*, 86 F.C.C.2d 469 (1981), *modified*, 89 F.C.C.2d 58 (1982), *further modified,* 90 F.C.C.2d 571 (1982); *appeal dismissed sub nom. United States v. FCC*, No. 82-1526, Slip Op. (D.C. Cir. Mar. 3, 1983); Rules for Rural Cellular Service, *First Report and Order*, 60 Rad. Reg. 2d 1029 (1986), *modified*, 2 FCC Rcd 733 (1987), *further modified*, 2 FCC Rcd 3366 (1987), 4 FCC Rcd 5272 (1988), 3 FCC Rcd 4403 (1988), 4 FCC Rcd 4,464 (1989).

[239] *See* 47 C.F.R. §§ 101.69-101.79.

MDS and ITFS incumbents would ultimately be required only to reduce their signal strengths at their GSA boundaries, not cease operations altogether or relocate.

104. A third alternative would be to refrain from providing for a voluntary negotiation period and proceed immediately to a mandatory negotiation and conversion phase, later to be followed by a sunset date after which incumbents would be required to assume their own conversion costs. The Commission used this procedure to clear terrestrial fixed microwave services from 18.58-19.3 GHz band when the Commission reallocated it to FSS.[240] We seek comments on the benefits and disadvantages of a voluntary negotiation period, and inquire what mandatory conversion requirements should apply if we decide not to adopt a voluntary negotiation period. We seek comment on all of these approaches, on other possible alternatives, on the appropriate date or dates for any deadlines that we might apply under any of the transition proposals and on the criteria that we should apply during any mandatory negotiation and conversion phase, should we choose to adopt one.

105. An altogether different option would be to rely on an auction to restructure the bands.[241] Such an approach might mitigate the need for a complicated set of transition rules because bidders might be able to obtain efficient packages of encumbered and unencumbered spectrum for new uses without engaging in costly and time-consuming bilateral and multi-lateral negotiations.[242] The efficacy of such an approach, of course, would depend upon how many incumbents chose to make their licenses available for competitive bidding. Transition rules might be necessary as a fall-back even if we conduct such an auction, to transition incumbent licensees that choose not to participate or receive no bids that induce them to sell.

106. We seek comment on all issues relating to the transition of existing licensees to a new band plan, including, but not limited to, the Coalition Proposal. Commenters addressing this issue should discuss in detail their preferred mechanisms for adopting any transition.[243]

7. ITFS Eligibility Restrictions

107. ITFS main channels account for 120 MHz of the 2500-2690 MHz band. Initially, the Commission intended ITFS stations to provide formal educational and cultural development in aural and visual form to students enrolled in accredited public and private schools, colleges and universities.[244] Generally, our Rules limit eligibility for ITFS to: (1) accredited educational institutions, (2) governmental organizations engaged in the formal education of enrolled students, and (3) nonprofit organizations whose purposes are organizational and include providing educational and educational television materials to

[240] *See* 47 C.F.R. §§ 101.85-101.95.

[241] *See* Section III.J, *infra*.

[242] *See* Evan Kwerel and John Williams, *A Proposal for a Rapid Transition to Market Allocation of Spectrum* (FCC Office of Plans and Policy Working Paper, Nov. 2002).

[243] Some MDS licensees, who also lease ITFS channels, employ CARS for their video operations as Wireless Cable Systems. They would continue to be eligible to be CARS licensees for those video operations, but not for low power broadband operations. Transition to the new band plan must also consider modification of those operations.

[244] 47 C.F.R. § 74.931(a)(1).

accredited institutions and governmental organizations.[245] In 1971, the Commission did not see a valid reason to change the ITFS eligibility rules.[246] In 1985, after recognizing that ITFS signals were reaching the homes of MDS subscribers, the Commission revised the main purpose of ITFS. The Commission determined that the transmission of instructional material for accredited educational institutions was an "*essential use*" of ITFS stations, *i.e.*, at least some of their capacity had to be used for the transmission of course-oriented formal instructional material.[247] In 1991, the Commission voiced its support of the role of ITFS in providing improved educational opportunities for all.[248] Consequently, the Commission remained committed to not jeopardizing the current or future ability of ITFS to fulfill its primary intended purpose of providing educational material for instructional use.[249] In fact, the Commission expressed its intention to enforce strictly the existing eligibility rules.[250]

108. In many respects, our regulatory policies toward MDS and, to a lesser extent, our treatment of ITFS over the years have represented pioneering movements toward flexible use. We initially limited MDS licensees to common carrier operations and adopted technical rules that limited the service to point-to-multipoint distribution from a single point, but we allowed MDS subscribers to transmit any of a broad range of content types: private television, high speed computer data, facsimile, control information, or other communications capable of radio transmission.[251] In 1983, the *First Leasing Decision* authorized ITFS operators to begin leasing unused channel capacity to commercial entities. Thus, as WCA notes in comments that it filed in our Spectrum Policy Task Force proceeding, "The secondary markets concept (under which licensees could lease the spectrum usage rights to third parties) has been a staple of the Commission's MDS/ITFS rules for twenty years."[252]

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[245] *See* 47 C.F.R. § 74.932(a). Under certain circumstances, "wireless cable entities" may obtain access to ITFS channels so long as at least eight other ITFS channels remain available for future ITFS use. *See* 47 C.F.R. § 74.990-74.992.

[246] Amendment of Parts 2 and 74 of the Commission's Rules and Regulations to Establish a New Class of Educational Television Service for the Transmission of Instructional and Cultural Material to Multiple Receiving Locations on Channels in the 2500-2690 MHz Frequency Band, Docket No. 14744, *Second Report and Order*, 30 F.C.C. 2d 197, 200 ¶ 10 ("*ITFS Second R&O"*).

[247] Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service, *Second Report and Order*, 101 F.C.C.2d 50, 80 ¶¶ 75-78 (1985) (*emphasis added*) *Part 74 Second R&O*). The Commission also eliminated the requirement to transmit course-oriented material to selected accredited school sites if in lieu thereof the licensee names "the school(s) and the degree(s) or diploma(s) for which the formal programming will be offered and describe[s] the administration of the courses(s)," along with supporting documentation. 47 C.F.R. § 74.931(a)(2).

[248] Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service, *Second Report and Order*, 6 FCC Rcd 6,764, 6,774 ¶ 48 n.45 (1991).

[249] *Id.*

[250] *Id.* at 6 FCC Rcd 6,774 n.45.

[251] Amendment of Parts 1, 2, and 43 of the Commission's Rules and Regulations to Provide for Licensing and Regulation of Common Carrier Radio Stations in the Multipoint Distribution Service, *Report and Order*, 45 FCC 2d 616, 617 ¶ 5 (1974).

[252] Comments of WCA in ET Docket No. 02-135, at 5-6, filed Jan. 27, 2003.

109. One byproduct of our flexible use policy toward ITFS has been a reduction in the proportion of ITFS channel capacity used for educational purposes. As the MDS industry struggled to achieve commercial viability and ITFS operators sought to generate enough revenue to survive, we gradually relaxed the restrictions on channel leasing. One step at a time, over a fifteen year period, we reduced the educational obligations of ITFS operators to a minimal level, ultimately allowing them to lease all but a small fraction of their capacity to commercial operators:

- In 1985 the Commission determined that ITFS licensees would be required to transmit at least 20 hours of instructional programming per week on each of their channels between 8 AM and 10 PM. It also required ITFS operators to preserve their right to recapture at least an additional 20 hours per week, including at least three hours per day on weekdays between 8 AM and 10 PM.[253] The Commission further determined, however, that it would permit commercial channel lessees to build, own, and operate the transmitters involved, provided that ITFS licensees met the above-stated programming requirements.[254]

- By 1991, ITFS operators were increasingly reliant upon MDS operators as a source of revenue and operational support, but MDS operators were finding it difficult to compete against cable television and DBS while simultaneously supporting ITFS. The inability to lease ITFS channels on a 24-hour-per-day basis was impairing the ability of MDS operators to make effective commercial use of ITFS capacity, which depressed the prices that MDS operators were willing and able to pay for ITFS capacity. Thus, ITFS operators willingly acquiesced when the Commission eliminated the time-of-day restrictions on its minimum ITFS transmission requirements and authorized operators to use automatic channel-switching equipment to create the appearance, to end users, of channels that were 100 percent dedicated to commercial programming.[255] We referred to this process as "channel mapping."

- Three years later, the Commission acknowledged that channel-mapping was a costly endeavor and allowed ITFS licensees to load all of the educational programming required for a four-channel system onto one ITFS channel, leaving the other three channels available for full-time leasing to commercial operators.[256] In addition, the Commission determined that ITFS operators need not keep an additional 20 hours per channel available for recapture on their own ITFS channels if, in lieu thereof, the ITFS operator negotiated an option to obtain access to an equal number of hours on another licensee's ITFS or MDS channel within the same market-wide system.[257]

- In 1995, the Commission further relaxed its requirements by deciding that ITFS operators could fulfill their instructional obligations even if no more than one of their reception sites served an

[253] Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service*, Second Report and Order*, 101 F.C.C.2d 50, 87 ¶ 95 (1985).

[254] *Id.* at 99-91, ¶¶ 98-106.

[255] Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service*, Order on Reconsideration*, 6 FCC Rcd 6,764 ¶¶ 51-52 (1991).

[256] Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service, *Report and Order*, 9 FCC Rcd 3,360, 3,365 ¶ 18 (1994).

[257] *Id.* at 3,365 ¶ 20.

accredited educational institution.[258] In 1996, we authorized ITFS operators to expand their effective channel capacity through the use of digital transmission systems, making it possible to deliver more than a hundred channels over the available bandwidth. In doing so, we declined to require a concomitant increase in the hours of educational programming provided by ITFS operators.[259]

- In 1998, the Commission again declined to increase the hours of educational programming offered on ITFS stations and further relaxed its requirements in four ways. First, we eliminated the requirement that ITFS operators fulfill their minimum educational usage obligations by transmitting such content on their own stations, allowing them the option of transmitting it on other licensees' ITFS or MDS stations.[260] Second, we determined that digital ITFS stations would in most cases be required to use or reserve no more than 5 percent of their transmission capacity for educational programming.[261] Third, we gave ITFS licensees increased flexibility in determining which transmissions would qualify as satisfying the service's educational usage requirements, to include but not be limited to teacher conferencing, remote test administration, distribution of reports and assignments, research toward and sharing work of progress in projects for courses, professional training, continuing education, and other similar uses.[262] Finally, we declined to impose any educational usage requirements upon digital ITFS response stations or response station hubs, based on the understanding that ITFS operators would not be able to control the content of upstream transmissions from end users.[263]

Thus, from 1983 through 1998 we progressively reduced the performance required of ITFS operators while expanding the opportunities for ITFS operators to generate income by leasing out their channels, and we substantially increased MDS operators' access to ITFS spectrum.

110. As noted above, in 1987, we provided MDS licensees the additional option of electing to provide service and be regulated on a non-common carrier (and non-broadcast) basis.[264] In 1998, we revised our rules to allow both MDS and ITFS licensees to construct digital two-way systems capable of providing high-speed, high-capacity broadband service, including two-way Internet service via

[258] *Id.* at 2,920 ¶ 75.

[259] *Digital Modulation Declaratory Ruling and Order,* 11 FCC Rcd at 18872-18873*,* ¶ 58.

[260] Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, Report and Order,* 13 FCC Rcd 19112, 19166, ¶ 101 (1998).

[261] *Id.* at 19159 ¶ 89. The Commission also maintained its longstanding requirement that the ITFS operator transmit at least 20 hours per week of educational programming per 6 MHz channel. *Id.*

[262] *Id.* at 19154 ¶ 81.

[263] *Id.* at 19,155 ¶ 82.

[264] Revisions to Part 21 of the Commission's Rules Regarding Multipoint Distribution Service*, Report and Order*, 2 FCC Rcd 4,251 (1987). In 1983, we determined that ITFS operators could choose to provide service on either a private or common carrier basis and would be subject to regulation commensurate with their style of operation. *Allocation R&O*, 94 F.C.C.2d 1203, 1248-1255, ¶¶ 111-129.

cellularized communication systems.[265] In 2001, we applied a mobile allocation in the 2500-2690 MHz band.[266] Despite those several decisions removing various restrictions from MDS and ITFS, however, we have continued to limit the classes of applicants that are eligible to obtain ITFS licenses.

111. In recent years, we have pursued a general policy of eliminating use restrictions in radio licenses except in circumstances where there are clear and compelling reasons for retaining them. The basis for this policy was articulated in the *Spectrum Policy Statement* in 2000: if market forces are allowed to operate without being restricted by government, they will tend to push the use of radio licenses to their highest valued applications.[267] Since then, we have applied that policy to broaden eligibility in the Cable Television Relay Service;[268] to establish eligibility for a broad variety of users in the 648-746 MHz band (reclaimed from broadcasters using TV channels 52-59);[269] to establish service rules for the 747-762 MHz and 777-792 MHz bands (reclaimed from broadcasters using TV channels 60-69);[270] to explore the possibility of introducing third generation cellular services in frequency bands previously reserved for traditional forms of cellular, broadband PCS, and SMR, as well as in the 1710-1755 MHz, 1755-1850 MHz, 2110-2150 MHz, 2160-2165 MHz and 2500-2690 MHz bands;[271] and to encourage the development of secondary markets in radio licenses.[272] Before adopting the *Spectrum Policy Statement,* the Commission applied a flexible use policy when establishing WCS. In that service, the Commission imposed no eligibility restrictions other than the foreign ownership restrictions set forth in Section 310 of the Communications Act.[273] All of those decisions have occurred since we last reaffirmed our ITFS eligibility policies in 1991.

112. While our general policy toward use restrictions has evolved since 1991, significant events specific to ITFS have occurred that warrant our revisiting whether an eligibility restriction continues to be necessary. Those events include the increased use of ITFS spectrum in MDS systems,

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[265] Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, *Report and Order*, 13 FCC Rcd 19,112 (1998), *recon.*, 14 FCC Rcd 12,764 (1999), *further recon*., 15 FCC Rcd 14,566 (2000) (*Two-Way Order*).

[266] *Mobile Report and Order,* 16 FCC Rcd 17,222 (2001).

[267] Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, 15 FCC Rcd 24,178 (2000) (Spectrum Policy Statement).

[268] Amendment of Eligibility Requirements in Part 78 Regarding 12 GHz Cable Television Relay Service, *Report and Order*, 17 FCC Rcd 9,930 (2002).

[269] *See* Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, Notice of Proposed Rulemaking*, 16 FCC Rcd 7,278 (2001).

[270] Service Rules for 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *First Report and Order*, 15 FCC Rcd 476 (2000).

[271] Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems*, Notice of Proposed Rulemaking and Order*, 16 FCC Rcd 596 (2001).

[272] Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Notice of Proposed Rulemaking*, 15 FCC Rcd 24,203 (2000).

[273] *WCS R&*O, 12 FCC Rcd 10,785.

and the development of alternative means of providing educational content to students. Based on those developments, we believe that it serves the public interest to consider providing both current MDS and ITFS licensees with additional flexibility.

113. Although our rules state that the primary use of ITFS is for educational and cultural development, they allow an ITFS licensee to lease up to ninety-five percent of its channel capacity for non-educational programming.[274] This increased use of ITFS spectrum in connection with MDS systems through leasing arrangements enabled educational institutions to fund the construction of stations and to develop educational programming. By comparison, our rules require direct broadcast satellite (DBS) licensees to reserve four percent of their channel capacity for use by qualified programmers for noncommercial programming of an educational or informational nature.[275] Thus, while ITFS retains both its historic nomenclature and a codified statement of purpose identifying the transmission of educational programming as its primary purpose, the required amount of educational programming carried on such stations in actuality may barely exceed the minimum proportion required for DBS. We seek comments from other licensees and lessees to determine whether that degree of consolidation is typical of the industry as a whole.

114. We note currently, for example, that the public may obtain educational programming by using the Internet to receive college courses as well as obtaining the services of for-profit corporations that provide educational programming. Education is becoming more popular over the Internet because the Internet's ability to deliver media-rich content is improving rapidly. In 2002, approximately 2.2 million college students took courses over the Internet compared with 710,000 college students in 1998 – a 210% increase.[276] These students chose from over 6,000 online courses delivered by eighty-four percent of four-year colleges and universities.[277] These courses were accessible worldwide on the Internet to a rapidly expanding pool of users with sufficient connections. Already, more than twenty-eight percent of U.S. online households have broadband connections to the Internet; by one estimate, the number of broadband users experienced a nine percent average monthly growth rate between February 2000 and June 2002.[278] On the other hand, some educational institutions, especially those in rural areas and those with less economic resources, do not utilize broadband. We seek comment on what ITFS enables educators to achieve that the Internet could not. What role does educational broadcasting in other bands play? Finally, we seek comment from educators on whether commercial programming is able to fulfill some of these needs. We seek comment on whether continuing to restrict the eligibility for ITFS spectrum is in the public interest or whether maintaining educational responsibilities remains in the public interest.

115. Although we perceive that significant developments have occurred since the last examination of the ITFS eligibility restriction, retention of the restriction could be detrimental to the

[274] 47 C.F.R. § 74.931(d)(1).

[275] *See* 47 C.F.R. § 100.5.

[276] Jared Bleak, *Educated by the Market: A Researcher's Look at Educational Entrepreneurialism* (Harvard Graduate School of Education, Oct. 5, 2001) http://www.gse.harvard.edu/news/features/market10052001.html).

[277] *Id.*

[278] *Broadband Increases Household Penetration, Silicon Valley/San Jose Business Journal,* Nov. 13, 2002, *citing* a Gartner Dataquest survey of 45,000 U.S. households. The article is accessible online at the following World Wide Web address: (http://sanjose.bizjournals.com/sanjose/stories/2002/11/11/daily39.html).

growth of services on the ITFS channels. The complexity of the contractual relationships that our rules require in the ITFS service may discourage investment and impair the ability of service providers to modify their operations in response to changing technology and market conditions. For example, an MMDS operator who wants to change from providing one-way, high-powered television transmission operations from a single tower to providing two-way Internet access from multiple low-powered base stations, it must gain the consent of the ITFS operators in the market, even though the MMDS operator may already have a leasing agreement with the ITFS licensee. Innovation could proceed more smoothly if commercial operators were able to aggregate spectrum in the 2500-2690 MHz band and purchase ITFS stations, which would allow them to exercise direct ownership control.

116. In light of these developments, we seek comment on various options relating to the ITFS service. We emphasize that we do not contemplate reclaiming licenses from any incumbent licensees, so long as they comply with any revised technical, service or other rules that we adopt for this band. We realize that if the FCC provides existing ITFS and MDS licensees with greater flexibility, those licensees may capture the increased value given that they could not have paid for that value when they obtained their original license. Accordingly, we seek comment on whether allowing these licensees to capture such value is in the public interest on balance with having this spectrum underutilized? If not, what other approach would parties recommend the FCC implement to ensure efficient use of the MMDS and ITFS spectrum? We request comment on combining the MMDS and ITFS services into a new Broadband Radio Service with requirements similar to those that apply now to MMDS, *i.e.*, open eligibility and no educational programming requirement. Additionally, we seek comment on maintaining ITFS as a separate service requiring educational programming but modifying the eligibility requirements to allow for-profit companies to be eligible licensees. Furthermore, we invite comment on whether or not we should eliminate or otherwise change our existing ITFS instructional content origination rules. We note, for example, that one such change could be to apply to ITFS channels public interest obligations comparable to those that apply to DBS under Section 100.5 of our rules.[279] We also ask commenters to suggest alternative changes to ITFS that will result in robust services to the public.[280] We also seek comment on whether data services can meet the ITFS programming requirement. While we note that these educational requirements were developed in a video context, we recognize that data service, i.e., high speed internet data connections may be useful to educational institutions. Moreover, we seek comment on what kind of requirements should be required of ITFS licensees providing data services. We believe that there is a public interest benefit in promoting data services in this context particularly given that they do not consume as much spectrum as video and may be more useful than a minimal amount of video programming. Commenters may also believe that educational requirements for ITFS remains important, and that the Commission should find ways of promoting more use of the spectrum for educational purposes. We also seek comment on requiring a higher percentage of educational use for new ITFS licensees, such as twenty-five percent which was advocated by the ITFS community in the past. Finally we seek comment on other ways the Commission can strengthen the public interest in spectrum-based services for educational institutions?

117. To the extent that commercial or noncommercial MDS or ITFS operators may prefer to

[279] As noted in para. 113, supra. DBS operators must reserve four percent of their channel capacity for use by qualified programmers for noncommercial programming of an educational or informational nature. *See* 47 C.F.R. § 100.5.

[280] Presumably, licensees in the new Broadband Radio Service or ITFS licensees under the revised eligibility requirements would be eligible for CARS licenses, as MDS licensees currently are, but only to the extent they carry video programming—broadband data is not a permissible use for CARS stations.

continue leasing channel capacity from others, we do not propose to prevent licensees from entering into new lease arrangements. ITFS licensees, to the same extent as MDS licensees, may assign their underlying license rights to commercial lessees or to others. In general, we prefer to let the markets determine the outcome of such arrangements without imposing limits, unless specific reasons justify a contrary policy. As a result, we seek comment on whether there are any circumstances under which we should restrict or require leasing in order to ensure that access to spectrum is not unduly limited.

118. We propose to relieve ITFS operators of the burden of filing copies of every channel lease agreement with the Commission. While the Commission never codified these requirements, they were enunciated from time to time in various orders.[281] We propose to eliminate such requirements, with the proviso that licensees retain copies of channel lease agreements in their files and make them available to the Commission upon request. We seek comment on these proposals and the utility of retaining the ITFS eligibility restriction.

8. Other Eligibility Restrictions

119. Eligibility issues relevant to this proceeding are addressed in Sections 309(j), 257, and 613(a) of the Telecommunications Act of 1996. When granting the Commission authority in Section 309(j) of the Act to auction wireless spectrum, Congress acknowledged our authority to "[specify] eligibility and other characteristics of such licenses."[282] However, Congress specifically directed the Commission to exercise that authority so as to "promot[e] . . . economic opportunity and competition."[283] Congress also emphasized this pro-competitive policy in Section 257, where it articulated a "national policy" in favor of "vigorous economic competition" and the elimination of barriers to market entry by a new generation of telecommunications providers.[284] Section 613(a) also prohibits a cable operator from holding an MMDS license in any portion of the franchise area served by that cable operator's system.[285] The intent was to encourage entry of alternative providers of multichannel video service into markets dominated by incumbent cable systems in order to spur competition.[286] The cross-ownership restriction

[281] *See, e.g., Part 74 Second R&O*, 101 F.C.C.2d at 91 ¶ 105 (existing operators who begin to lease out excess capacity required to submit copies of their leases to the Commission).

[282] *See* 47 U.S.C. § 309(j)(3).

[283] *Id.*

[284] *See* 47 U.S.C. § 257.

[285] Section 21.912 of our rules implements Section 613 of the Act. Section 613 of the Act states that: It shall be unlawful for a cable operator to hold a license for multichannel multipoint distribution service, or to offer satellite master antenna television services separate and apart from any franchised cable service in any portion of the franchise area served by that cable operator's cable system. The Commission (1) shall waive the requirements of this paragraph for all existing multichannel multipoint distribution services . . . which are owned by a cable operator on October 5, 1992; (2) may waive the requirements of this paragraph to the extent the Commission determines is necessary to ensure that all significant portions of a franchise area are able to obtain video programming; and (3) shall not apply the requirements of this subsection to any cable operator in any franchise area in which a cable operator is subject to effective competition as determined under section 623(l) (47 U.S.C. § 533(a)). Section 613(a) was added to the Act by Section 11(a) of the 1992 Cable Act (Cable Television Consumer Protection and Competition Act 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992 Cable Act)).

[286] Implementation of Sections 11 and 13 of the Cable Television Consumer Protection and Competition Act of 1992 Horizontal Limitations and Anti-Trafficking Provisions, *Report and Order and Furthermore Notice of* (continued….)

addressed Congress' concern that common ownership of different means of video distribution may reduce competition and limit the diversity of voices available to the public.[287] However, Section 613(a) does authorize the Commission to waive the cross-ownership prohibition in order to ensure that all significant portions of the franchise area are able to obtain video programming.[288] In addition, the cross-ownership restriction shall not apply if the cable franchise operates in a geographic area that is subject to "effective competition." [289]

120. When the Cable Act was enacted in 1992, MDS operators were limited to offering television programming to paid subscribers and Congress was concerned with MDS providers' ability to compete with cable. Six years later, the Commission fundamentally changed the nature of the MDS service when it permitted MDS licensees to construct systems capable of providing high-speed, high-capacity broadband service. In light of the legislative history of Section 613 and the change to the MDS service, we seek comment on how this statutory restriction would apply to non-video services, such as broadband service or mobile phone service. In this regard, we note that the Act does not define "multichannel multipoint distribution service" but does define "multichannel video programming distributor" (MVPD) as "a person such as, but not limited to, a cable operator, a multichannel multipoint distribution service, a direct broadcast satellite service, or a television receive-only satellite program distributor, who makes available for purchase by subscribers or customers, multiple channels of video programming."[290]

121. Under our precedent, eligibility restrictions should be imposed only when (1) there is a significant likelihood of substantial competitive harm in specific markets, and, (2) only when eligibility restrictions are an effective way to address such harm.[291] When assessing the need to restrict the

(Continued from previous page)
Proposed Rulemaking, MM Docket No. 92-264, 8 FCC Rcd 6,828, 6,845 ¶ 121 (1993) *citing* Senate Report 102-92 (1991) at 46 *(Cable R&O).*

[287] *Cable R&O*, 8 FCC Rcd 6,828, 6841 ¶ 92 *citing* Senate Report 102-92 at 46. The Senate Committee also indicated that such cross-ownership rules were necessary to enhance competition and to further diversity, by preventing cable operators from warehousing spectrum in an attempt to preclude entry by alternative MVPD providers. *Id*.

[288] *Id.* at 6841 ¶ 93 *citing* 47 U.S.C. § 533(c)(2)(B).

[289] 47 U.S.C. § 533(a). *See* 47 U.S.C. § 543(l). Section 623(l) of the Communication's Act defines "effective competition" as: A) fewer than 30 percent of the households in the franchise area subscribe to the cable service of a cable system; B) the franchise area is served by a minimum of two unaffiliated multichannel video programming distributors each of which offers comparable video programming to at least fifty percent of the households in the franchise area and the number of households subscribing to programming services offered by multichannel video programming distributors other than the largest multichannel video programming distributor exceeds fifteen percent of the households in the franchise area; C) a multichannel video programming distributor operated by the franchising authority for that franchise area offers video programming to at least fifty percent of the households in that franchise area; or D) a local exchange carrier or its affiliate (or any multichannel video programming distributor using the facilities of such carrier or its affiliate) offers video programming services directly to subscribers by any means (other than direct-to-home satellite services) in the franchise area of an unaffiliated cable operator which is providing cable service in that franchise area, but only if the video programming services so offered in that area are comparable to the video programming services provided by the unaffiliated cable operator in that area.

[290] 47 U.S.C. § 522(13).

[291] *See 39 GHz Report and Order*, 12 FCC Rcd at 18637 ¶ 79.

opportunity of any class of service provider to obtain spectrum for the provision of communications services, our overall goal has been to determine whether the restriction is necessary to ensure that consumers will receive communications services in a spectrum-efficient manner and at reasonable prices.[292] Consequently, we believe we should rely on competitive market forces to guide license assignment absent a compelling showing that regulatory intervention to exclude potential participants is necessary. In order to determine the competitiveness of a market, there must be an examination of market concentration in addition to other relevant market facts and circumstances. Also important in determining the competitiveness of a given market are the economic incentives for entry into a market, the existence of potential competitors, and the existence of barriers to entry.[293] According to the Department of Justice Merger Guidelines, a market is competitive if, in response to a price increase or quality decrease by the incumbents, "…entry would be timely, likely, and sufficient in its magnitude, character, and scope to deter or counteract the competitive effects of concern."[294]

122. Based on our preliminary analysis, we do not believe it likely in most cases that cable operators and/or DBS providers would have the incentive to acquire MDS/ITFS licenses in order to foreclose entry by a wireless MVPD provider. New MDS licensees are very unlikely to be entrants into the MVPD market for reasons discussed earlier in the *NPRM & MO&O*. This conclusion is based upon the fact that the current MDS video providers have been unable to penetrate the vast majority of markets within the United States. Overall, the service has proven to be unsuccessful and at the moment is not a viable alternative to cable and DBS. We request comment on whether opening up eligibility to cable providers would have a significant effect on concentration in video markets.

123. Although we anticipate that this spectrum will be largely used as a mobile voice and data service, the most relevant issue may be whether or not open eligibility for cable operators would have a negative impact on the broadband internet market. Industry analysts estimated that in the Fall of 2001 approximately 68% of residential broadband subscribers used cable modem service, 29% used Digital Subscriber Line (DSL) service, and about 3% used various radio-based technologies.[295] Industry analysts also estimated that in the second quarter of 2002, approximately 66% of the total cable and DSL subscribers were cable subscribers and about 34% were DSL subscribers.[296] Our own data indicate that 57% of high speed lines (connection to an end-user that is faster than 200 kbps in at least one direction) in service are cable lines, 31% are Asymmetric Digital Subscriber Line (ADSL) lines, and 11% are operated by other fringe competitors (other wireline, fiber, satellite, or fixed).[297] In addition, 36% of high-speed lines are provided by a Regional Bell Operating Company (RBOC) or other Incumbent Local Exchange Carrier (ILEC), 56% of high-speed lines are provided by cable (non-ILEC), and 7% are provided by other

[292] *See* 47 U.S.C. § 151.

[293] Rule Making to Amend Parts 1, 2, 21,and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Services and for Fixed Satellite Services, *Third Order on Reconsideration*, 13 FCC Rcd 4856, 4861 ¶ 7, 4863 ¶ 12 (1998).

[294] 1992 Horizontal Merger Guidelines, U.S. Department of Justice and the Federal Trade Commission, p. 25.

[295] *Declaratory Ruling,* 17 FCC Rcd at 4804.

[296] http://www.cabledatacomnews.com/cmic/cmic16.html (visited Feb. 5, 2002)

[297] Figures derived from Table 1 of "High Speed Services for Internet Access: Status as of June 30, 2002," Industry Analysis and Technology Division, Wireline Competition Bureau, Dec. 2002.

non-ILEC.[298] If we assume that a typical market consists of the incumbent service provider, one cable provider, and one other non-ILEC, and assume that the above numbers can be used to represent a typical market, the Herfindahl-Hirschman Index (HHI) is approximately 4500.[299] If we don't allow for an additional non-ILEC and again assuming that the national numbers of ILEC/RBOC and cable non-ILEC can be used to calculate market shares representative of a typical local broadband market, the HHI ranges between approximately 5000 and 5400. The above figures indicate that the typical broadband internet market is very highly concentrated. We request comment on this analysis and any evidence to the contrary. Commenters also should identify and discuss any regional differences and/or differences between urban and rural areas that impact such analysis.

124. We note that broadband market shares for residential and small business markets are quite different from those of medium and large size business markets. As of June 30, 2002, national high-speed residential and small business lines consisted of 65% cable lines, 31% ADSL lines, and 3% other.[300] Business (medium and large size) lines consisted of 1% cable lines, 32% ADSL lines, 43% other wireline, 23% fiber, and 1% satellite or fixed wireless.[301] In addition, 31% of residential and small business high-speed lines are provided by a RBOC or other ILEC, 65% are provided by cable (non-ILEC), and 4% are provided by other non-ILEC on a national basis. Seventy-two percent of business (medium and large size) high-speed lines are provided by a RBOC or other ILEC, and 28% are provided by non-ILECs. We note that cable seems to play a very insignificant role in the business market. If we assume that a typical residential (and small business) market consists of the ILEC provider, one cable provider, and one other non-ILEC, and assume that the national figures can be used to represent a typical local market, the HHI is approximately 5200. If we don't allow for an additional non-ILEC and again assuming that the national numbers of ILEC/RBOC and cable non-ILEC can be used to calculate market shares representative of a typical local broadband market, the HHI ranges between approximately 5500 and 5800. We note that the residential numbers indicate that the markets are more concentrated than the total numbers indicate. If we assume that a typical business (medium and large size) market consists of the incumbent service provider and one other non-ILEC, the HHI is approximately 6000. Markets in which the non-ILEC plays a very insignificant role are essentially monopolies and the HHI can approach 10,000. As the national market share for the non-ILEC (excluding cable) for the business market is quite a bit higher than for the residential market, we request comment as to whether there is likely to be more than one non-cable, non-ILEC provider in a typical broadband business market.

125. Although the typical broadband internet market is highly concentrated, in some

[298] High Speed Services for Internet Access: Status as of June 30, 2002, Industry Analysis and Technology Division, Wireline Competition Bureau, Dec. 2002, Table 5.

[299] Note that we do not have the data necessary to explicitly delineate the relevant product and geographic markets but believe that this analysis can give us a general idea of likely concentration levels.

[300] The market shares do not sum to one due to rounding. The data consists of information gathered from qualifying service providers who must submit FCC Form 477 on a biannual basis.

[301] The mutually exclusive types of technology are, respectively: Asymmetric digital subscriber line (ADSL) technologies, which provide speeds in one direction greater than speeds in the other direction; wireline technologies "other" than ADSL, including traditional telephone company high-speed services and symmetric DSL services that provide equivalent functionality; coaxial cable, including the typical hybrid fiber-coax (HFC) architecture of upgraded cable TV systems; optical fiber to the subscriber's premises (e.g., Fiber-to-the-Home, or FTTH); and satellite and (terrestrial) fixed wireless systems, which use radio spectrum to communicate with a radio transmitter at the subscriber's premises.

circumstances there could be substantial benefits to allowing the incumbent cable or DSL operator to have more access to the MDS/ITFS spectrum. For example, in situations where expensive plant upgrades are not feasible, DSL service providers may be able to use spectrum to offer broadband internet service to customers who live in rural areas or beyond distance limitations from the central office. In addition, rural cable operators may be able to offer broadband internet service by using the spectrum to expand channel capacity (note that there are areas of the country that do not have access to DSL or cable modem service.[302] We note that Section 613(a) allows the Commission to waive the cable/MMDS cross-ownership restriction to ensure that all significant portions of a franchise area are able to obtain video programming. If eligibility restrictions were to be implemented, competition in the broadband internet markets could be enhanced through the use of such a waiver.

126. Given the above analysis we request comment on whether allowing incumbent cable operators and/or DSL providers to be eligible to obtain MDS/ITFS licenses could have a negative impact in some broadband internet markets. If the incumbent cable and DSL operators believe that purchasing unlicensed spectrum at auction would have the effect of precluding current as well as future entry, they may purchase spectrum in an attempt to protect their market power. We request comment on this analysis and specific evidence, including the relevant market shares, for any local broadband internet market that may be negatively affected by allowing open eligibility to incumbent cable operators and/or DSL providers. We also request comment on the impact of an eligibility restriction on rural and underserved areas and whether eligibility waivers would be effective in allowing growth in these areas. When providing market share information, we request that commenters define the relevant geographic and product markets from which the market share information is derived. In addition, we request comment on the likelihood of future entry of wireless broadband internet service providers, assuming that they are not able to purchase the unlicensed ITFS spectrum. That is, are there substantial barriers to entry posed by the limited availability of spectrum?

127. As discussed earlier in the NPRM & MO&O, the proposed band restructuring will make mobile service a viable option in the MDS/ITFS band. Therefore, the effect of open eligibility on the mobile voice and data markets also needs to be considered. The Commission decided last year to "sunset" the CMRS spectrum aggregation limit, or "spectrum cap,"[303] effective January 1, 2003.[304] The Commission found that the cap, by setting an *a priori* limit on spectrum aggregation without looking at the particular circumstances of specific proposed transactions, was unnecessarily inflexible and could be preventing beneficial arrangements that promote efficiency without undermining competition. However, the Commission also stated that the Commission would continue to pursue the objectives of "discourag[ing] anticompetitive behavior while at the same time maintaining incentives for innovation and efficiency,"[305] but would do so by performing case-by-case reviews of proposed CMRS spectrum

[302] For example, there are residences and businesses in Jacksonville, FL that have neither access to DSL nor cable modem service. Wireless Communications Association Bulletin, "Clearwire Launches Next-Gen ITFS Service In Jacksonville," Jan. 9, 2003, p. 3.

[303] *See* 47 C.F.R. § 20.6.

[304] *See* 2000 Biennial Regulatory Review: Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01-14, *Report and Order*, 16 FCC Rcd 22,668 (2001) (*Spectrum Cap Order*), *recon. pending*.

[305] *Spectrum Cap Order*, 16 FCC Rcd at 22,679 ¶ 26 n.71 (*citing* Implementation of Sections 3(n) and 332 of the Communications Act—Regulatory Treatment of Mobile Services, GN Docket No. 93-252, *Third Report and Order*, 9 FCC Rcd 7,988, 8,105 ¶ 251 (1993)).

transactions rather than by applying a prophylactic rule.[306] And, as is most relevant here, the Commission found that "to the extent that the initial distribution of spectrum through auction is an issue in the future, that is also amenable to case-by-case review, in the sense that [the Commission] can shape the initial distribution through the service rules adopted with respect to specific auctions."[307]

128. Given the current state of competition in the CMRS industry, we believe that such restrictions are not necessary for the 2500-2690 MHz band. To the contrary, does opening this band to as wide a range of applicants as possible encourage entrepreneurial efforts to develop new technologies and services, while helping to ensure efficient use of this spectrum? Is this approach consistent with our statutory mandates? We seek comment on these questions.

129. In sum, we seek comment on whether eligibility restrictions over and above those required by statute are necessary in the 2500-2690 MHz band. We seek comment on whether opening these bands to as wide a range of applicants as possible would encourage entrepreneurial efforts to develop new technologies and services, while helping to ensure efficient use of this spectrum. To the extent any potential and substantial harms to competition are raised, we seek comment on whether the most effective means for addressing such allegations would be through a case-by-case review, taking into account all of the fact and circumstances.

E. Technical Issues

130. In the preceding section, we addressed band plan reconfigurations, geographic area licensing and eligibility issues. In this section, we address technical proposals to enhance the service. We ask for comments on these issues as well as suggestions concerning other technical rule changes that may be of benefit to the Services.

1. Signal Strength Limits at Geographic Service Area Boundaries

131. We seek comment on the signal strength limits to apply at geographic area boundaries. Last year, for example, we reallocated forty-eight megahertz in the lower 700 MHz band (broadcast television channels 52-59) to fixed and mobile services while allowing continued provision of broadcast services in the band on a secondary basis, and limited the permissible signal strength at service area boundaries to 40 dBμV/m, the same signal strength limit that we had adopted earlier for the upper 700 MHz band and the 800-MHz EA-based and 900-MHz MTA-based SMR services.[308] By comparison, our rules apply a somewhat higher 47 dBμV/m limit at the geographic service area boundaries for broadband PCS,[309] for Part 27 services in the 2305-2320 and 2345-2360 MHz bands, and for Part 27 services in the 1390-1395 and 1432-1435 MHz bands.[310] In all of those cases, the allowed signal strengths are compatible with the provision of low-powered cellular services in adjacent service areas. We are

[306] "[I]n light of the growth of both competition and consumer demand in CMRS markets, we conclude that case-by-case review, accompanied by enforcement of sanctions in cases of misconduct, is now preferable to the spectrum cap rule because it gives the Commission flexibility to reach the appropriate decision in each case, on the basis of the particular circumstances of that case." *Spectrum Cap Order*, 16 FCC Rcd at 22,693-94 ¶ 50.

[307] *Id.* at 22,696 ¶ 54.

[308] *See Lower 700 MHz Band R&O*, 17 FCC Rcd at 1,070 ¶ 119. This limit is codified at 47 C.F.R. § 27.55(a)(2).

[309] 47 C.F.R. § 24.236.

[310] 47 C.F.R. § 27.55(a)(1) and (3).

tentatively inclined to follow the same general standard in this proceeding but seek comments on any unique characteristics of the 2500-2690 MHz band that might warrant a different approach.

2. Authorization of Mobile Operation

132. Although we have applied a mobile allocation to the 2500-2690 MHz band, until now we have required MDS and ITFS licensees to obtain separate authorizations before commencing mobile service. We propose to authorize MDS and ITFS licensees to engage in mobile operation by blanket-licensing such operation under those licensees' geographic service area authorizations. We seek comment on the advisability of such blanket licenses and any requirements they should contain, including but not limited to those discussed above and below.

3. Power and Antenna Height Limits

133. *Response Stations.* Under our current rules, we limit response stations to a transmitter output power of 2 watts.[311] This is the same requirement that we have for broadband PCS mobile/portable operation in the 1.9 GHz band.[312] However, the Coalition notes that we adopted the 2-watt limit in the *Two-Way Order* without any explanation and urges that we delete this power limit.[313] It says that the limit unduly restricts the flexibility of equipment designers to make the most efficient use of the 2.1 and 2.5 GHz bands. The Coalition emphasizes, however, that it is not advocating any change in the restrictions on power contained in Parts 1 and 2 that are designed to assure the protection of human health and safety; in fact, it recommends that we clarify that those limits apply to MDS and ITFS by adding those services to the list of services specifically shown as being subject to the rules.[314]

134. While the 2-watt limit on PCS response stations seemed like a reasonable model to follow when we adopted a similar rule for MDS and ITFS, the record of the PCS proceeding indicates that the 2-watt limit was originally designed to reduce the likelihood of interference with fixed microwave stations in the PCS bands.[315] We seek comment on the extent to which similar concerns should apply for MDS and ITFS, bearing in mind the differences between the incumbent licensees in the MDS/ITFS bands – and their circumstances – as compared with the incumbent licensees in the PCS band. While compliance with our safety rules may by itself necessitate compliance with a 2-watt limit for devices that are normally held close to the user's body, those rules allow higher power levels in circumstances where the response station's transmission antenna is designed to be used at least twenty centimeters away from the body of the user or any nearby persons.[316]

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[311] *See* 47 C.F.R. §§ 21.909(g)(2) and 74.939(g)(2).

[312] *See* 47 C.F.R. § 24.232.

[313] Coalition Proposal at 25.

[314] *Id.* at 26.

[315] Amendment of the Commission's Rules to Establish New Personal Communications Services, *Second Report and Order*, 8 FCC Rcd 7,700, 7,764-7,765 ¶ 156 (1993).

[316] At frequencies above 1.5 GHz, mobile devices whose effective radiated power (ERP) is less than 3 watts are not required to undergo even routine environmental evaluation for radio frequency exposure prior to equipment authorization or use. 47 C.F.R. § 2.1091. A mobile device is defined for this purpose as "a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of (continued….)

135. Finally, we seek comment on whether we should establish a maximum antenna height for response stations in view of our proposal to blanket-license such stations. While mobile or portable stations would typically be close enough to the ground that they would be shielded by nearby structures, the rules that we contemplate adopting for these services would also permit the deployment of response stations at fixed locations, where they could be attached to antennas at high elevations. Such transmitters would have a greater potential for generating unwanted electrical interference. We seek comment on whether or not the signal strength limits that we propose to apply at geographic service area boundaries would obviate the need for antenna height limits.

136. *Base/Main Stations.* We note that there is no specific power limit specified for low power base stations nor are there base station transmitting antenna height limits for operating in this band. In view of our proposals above to limit power at other licensees' border areas, we ask for comment on whether there would be any benefit to establishing base station power and antenna height limits.

137. In particular, we seek comment upon a Coalition proposal to create incentives, but not an absolute requirement, for licensees to limit the height of low power base stations near their GSA borders.[317] The Coalition expresses concern that a 47 dBμV/m signal strength limit at GSA boundaries might not provide sufficient protection against interference to base station receivers. The scenario that causes them the most concern would arise when the interfering licensee is using a channel for downstream communications from its base stations, and the interfered-with licensee in a contiguous GSA is using the same channel for upstream communications to its base stations. Under these circumstances, the Coalition would have us apply a safe-harbor requirement that both licensees limit their antenna heights to $D^2/17$, where D is the distance in kilometers between the base station causing the interference and the point where a line connecting the transmitting base station with the neighboring receiving base station intersects the boundary between their respective GSAs. Antenna height for this purpose would be defined as the height in meters of the antenna's centerline above the average elevation along the line between the two base stations.[318] If a transmitting licensee's antenna is not within the safe-harbor height limit and the receiving licensee's antenna is within the safe harbor, the transmitting operator would be required to take such measures as are necessary to limit the level of the undesired signal at the receiving base station to -107 dBm or less.[319]

138. By comparison with the Coalition's recommendations, our Broadband PCS rules do not impose any direct limit on antenna heights, but they apply a graduated reduction in permissible e.i.r.p. output for base station antennas that are more than 300 meters in height.[320] On first impression, the Coalition's proposal appears to lack certainty, insofar as the requirements imposed upon a licensee would be dependent upon actions taken by a neighboring licensee. However, a licensee could ensure its compliance with the recommended safe harbor, regardless of any future actions taken by the neighboring licensee, by drawing a line intersecting the nearest point on the GSA boundary and assuming that the other licensee might someday site a base station somewhere on that line. The recommended formula

(Continued from previous page)
the user or nearby person." *Id.* Units designed to be used within twenty centimeters of a person are defined as "portable devices" and are subject to more stringent requirements. 47 C.F.R. § 2.1093.

[317] *See* Second Supplement to the Coalition Proposal at 3-7, filed Feb. 7, 2003.

[318] *Id.* at 5.

[319] *Id.* at 6.

[320] 47 C.F.R. § 24.232(a).

could then be applied to determine the maximum safe-harbor height for any given distance from the boundary. The safe harbor distance formula proposed by the Coalition does not adversely affect the typical 2-5 mile antenna service distance and 150' to 300' height above average terrain (HAAT) of base stations in low- power cellular networks. Although it seems to have a minimal effect on typical base station design, it is unclear how the coalition arrived at the formula itself. Is the formula really necessary? Is the formula "technology agnostic"?

139. In addition, given our licensing approach discussed herein, we seek comment on whether there is a need to reduce the maximum power permitted for high-powered video operations.[321] Finally, we request comment on the Coalition's proposal to eliminate the limitation pertaining to the use of digital modulations with non-uniform spectral densities, i.e., the uneven or random distribution of energy throughout the specified spectrum .[322]

4. Emission Limits

140. The purpose of emission limits, also known as emission masks, is to provide protection against adjacent channel interference (*e.g.,* restrict transmitter emissions on a range of frequencies removed from the licensee's assigned frequency or frequency band). The current rules governing emission limits for MDS and ITFS are set forth in Section 21.905 and 74.936, respectively. The current rules are based, however, on high power video operation and vary slightly between the services. As discussed herein, MDS licenses have indicated an interest to use this band for low power two-way operations. Further, we are proposing rules for mobile operation in this band. Consequently, we believe that modification of the rules governing out-of-band emissions may be necessary.

141. The Coalition recommends that we require equipment on the LBS and UBS channels (both base stations and stations at a customer's premise) to attenuate the power below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB on any frequency outside a licensee's authorized spectrum.[323] This recommendation is the same as the general emission mask the Commission adopted for operations in both the upper and lower 700 MHz band.[324] For the R channels the Coalition suggests requiring an attenuation of at least $80 + 10 \log_{10}(P)$ dB. The Coalition also asserts that additional attenuation may be required in special circumstances. For example, the Coalition states that the rules be changed to require a licensee to take steps to attenuate out-of-band emissions by at least $67 + 10 \log_{10}(P)$ dB upon written request from an adjacent channel licensee.[325] Requiring a licensee to reduce its out-of-band emissions at the request of an adjacent channel licensee, however, is not something we have done in the past. The

[321] *See* 47 C.F.R. § 74.935.

[322] *See* Coalition Proposal at 25 n.70.

[323] Coalition Proposal at 29.

[324] *Lower 700 MHz Band R&O*, 17 FCC Rcd at 1,070 ¶ 122.

[325] According to the Coalition's Proposal, the written request must include a certification from the requesting licensee that it intends to initiate service on the affected adjacent channel group at a date certain (not more than one year after the date of the written request), and that the additional attenuation is required due to the respective technical characteristics of the requesting licensee's planned facilities and those of the party receiving the request. The requesting licensee must also include in the written request currently available information regarding its planned network design comparable in scope to the information required to be filed upon completion of the construction of its facilities. *See* Coalition Proposal at 29.

Coalition also outlines a more restrictive mask for protecting operations on the MBS channels[326] and for licensees of MBS channels to protect operations on LBS and UBS channels.[327] Our initial observation here is that adopting all the Coalition's recommendations would be inconsistent with our attempt herein to simplify the rules governing this band (*e.g.,* minimize harmful interference without establishing overly burdensome requirements). Nevertheless, we seek comment on whether we should adopt the Coalition's recommendations concerning out-of-band emissions or different criteria and details on measurement procedures to determine compliance.[328] Further, we seek comment on the appropriate emission mask for mobile operations. In that regard, we note that we recently adopted out of band emission requirements to ancillary terrestrial component (ATC) mobile units in the 2000-2020 MHz band in order to protect adjacent channel PCS operations.[329] Since Mobile Satellite Service (MSS) and ATC units will be operating in the band immediately below 2500 MHz, we seek comment on whether similar limits should apply. We also seek comment on whether any special rules are needed to protect the Earth Exploration Satellite (passive), Radio Astronomy, and Space Research allocations in the 2690-2700 MHz band.[330] Finally, we request comment on whether we should specify a frequency tolerance or require equipment to maintain its operations fully within the emission mask at all times.

5. Technology

142. The Coalition states that we should not restrict operation in this band to a particular technology or technologies and our rules should remain technology-neutral to the maximum extent possible.[331] However, it does mention second-generation equipment employing two different technologies – FDD and TDD. The Coalition notes that FDD technology requires a separation between the highest frequency used in one direction and the lowest frequency used in the other direction.[332] To allow for FDD technology, the Coalition proposes that when this technology is employed by a licensee, the LBS be restricted to subscriber-to-base (upstream) communications and the UBS be restricted to base-

[326] The Coalition states "[i]n addition to the other requirements imposed on out-of-band emissions by stations operating outside the MBS, the licensee of any transmitter operating in the LBS, UBS, I, J, or K channels shall manage its out-of-band emissions such that the noise power introduced into an MBS channel does not exceed an EIRP of -37 dBm without the consent of the affected MBS channel licensee. Notwithstanding the foregoing, if the licensee of a channel outside the MBS digitizes a channel within the MBS, the noise power introduced into that channel of the MBS shall not exceed an EIRP of -20 dBm without the consent of the affected MBS channel licensee." *See* Coalition Proposal at 30.

[327] *See* Coalition Proposal at 16, nn.39, 41.

[328] For example, the Coalition suggests that we measure out-of-band emissions at the outermost edges of the combined channels where two or more contiguous channels are employed in the same system. *See* Coalition Proposal at 29 n.79. *See also* Coalition Proposal at 30 n.81.

[329] Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, IB Docket No. 01-185, *Report and Order and Notice of Proposed Rulemaking*, FCC 03-15 (rel. Feb. 10, 2003) at ¶ 119.

[330] *See* 47 C.F.R. § 2.106 n.US246.

[331] Coalition Proposal at 11 and 15.

[332] The Coalition points out that the Commission's *Interim Report* stated that a separation of at least 30 megahertz between upstream (customer to base) and downstream (base to customer) transmissions is needed to provide sufficient isolation of signals in the duplexer. *See* Coalition Proposal at 16. *See also Interim Report* at 54.

to-subscriber (downstream communications).[333] According to the Coalition, this framework will simplify adjacent channel coordination and provide the vendor community with a degree of certainty as to the band usage that will translate into lower equipment costs and smaller equipment. We seek comment on whether we should specify upstream and downstream channels in the rules should licensees use FDD or a similar technology. We also ask for comment on whether we should establish formal channel pairings to standardize the separation between channels used in upstream and downstream equipment.[334] In addition, we ask for comment on what role software defined radio technology can play here in resolving potential problems. Finally, we ask for comment on whether the Commission should adopt standards for mobile operation to promote interoperability and roaming.

6. Unlicensed "Underlay" Operation

143. As noted previously, one of the underlying goals of this proceeding is to promote increased access to spectrum. In this regard, we note that Intel and Microsoft advocate that we create or at least preserve the opportunity to create unlicensed "underlay" rights for very low-powered devices on these channels.[335] Recently, we issued a *Notice of Inquiry* concerning making additional spectrum available for use by unlicensed devices in the television bands and in the 3650-3700 MHz band.[336] In the *Unlicensed NOI*, we noted that there have been significant advances in technology that that may make it feasible to design new types of unlicensed equipment that would not cause interference to existing services.[337] For example, equipment could be designed that could monitor spectrum before transmitting to avoid interference, or equipment could be designed that could use the Global Positioning System to know where it is located and determine whether there are licensed operators in the area.[338] We also noted that allowing unlicensed operation with minimal technical requirements could potentially permit the development of new and innovative types of devices, such as new wireless data networks.[339]

144. The proximity of the 2500-2690 MHz band to successful unlicensed technologies in the 2.4 GHz band, and our goal of increasing the intensiveness and efficiency of use of the 2500-2655 MHz band, suggests that it may be appropriate to consider enhancing unlicensed use in the that band on a secondary, non-interference basis.[340] While we recognize that unlicensed operations under our Part 15 rules are subject to the condition that the transmitter does not cause interference to authorized services, we nonetheless are mindful in this context that additional measures may be necessary to ensure that

[333] Coalition Proposal at 16.

[334] In raising these questions, we recognize that the Coalition Proposal does not provide for formal pairings of channels but that, as the Coalition notes, operators could choose to pair channel groups that are sufficiently separated to allow upstream and downstream FDD communications. *See* Coalition Proposal at 15, n.40.

[335] Intel Reply Comments in RM-10586, at 5; Microsoft Reply Comments in RM-10586, at 3-4.

[336] Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, ET Docket No. 02-380, *Notice of Inquiry*, 17 FCC Rcd 25,632, (2002) ("*Unlicensed NOI*")

[337] *Id.* ¶ 13.

[338] *Id.*

[339] *Id.* ¶ 21.

[340] We also seek comment on a proposal to allow unlicensed operation on a primary basis for unassigned ITFS spectrum. *See paras. 79-82*, *supra*.

unlicensed operations do not cause interference to existing, licensed operations. In that regard, we note that WCA believes that Microsoft's and Intel's proposal is premature. WCA contends that the necessary technology for mass producing affordable devices capable of measuring and reliably adapting to the presence of background noise or "interference temperature" has not been demonstrated.[341]

145. As we observed in the *Unlicensed NOI,* allowing unlicensed devices to operate on spectrum that is not being utilized in a particular area would be a more efficient use of spectrum.[342] We seek comment on possible revisions to our rules to enhance unlicensed operations in the 2500-2690 MHz band. Are equipment economies possible between the 2.4 GHz band and the 2.5 GHz band for unlicensed operators? What Part 15 rules would need to be changed in order to allow enhanced unlicensed operation? Could we permit power levels greater than 1 watt for such operations without causing harmful interference to authorized MDS and ITFS users? If so, we seek comment on the maximum permissible power level. Would any restrictions on antenna gain or directivity be necessary? What other requirements would be necessary to protect existing MDS and ITFS users? Is unlicensed use appropriate for any of the band plans we mentioned earlier?[343] If we create high-power and low-power sections of the band, should we permit unlicensed use in one section of the band but not the other?

146. We seek comment on the extent to which underlay rights would have practical utility if they were made available on a less-than-nationwide basis. Is it feasible to manufacture affordable transceivers that are capable of using underlay rights where and only where such access is offered, if some but not all licensees on a given channel allow underlay access? If not, what kinds of institutional frameworks could facilitate national aggregation and sale of underlay rights? If a licensee or a group of licensees were willing to sell such rights, what kinds of entities would be likely purchasers? To make such transactions feasible, would it be necessary for the Commission to issue separate licenses for underlay rights, or would it suffice for the primary licensees to commit themselves contractually to refrain from seeking enforcement of interference protection from underlay users? If companies like Intel or Microsoft were willing to consider paying licensees to allow underlay operation on their channels, would the vendors seek to restrict underlay operation to their own customers, or would it suffice, from their perspective, if licensees were to allow underlay operation by anyone on their channels?

147. In addition, we note that Part 15 transmitters may not operate in certain restricted bands, including 2655-2690 MHz.[344] Are there any circumstances under which unlicensed operation could be allowed in the 2655-2690 MHz band without adversely affecting passive sensing operations in the 2655-2700 MHz band?

148. We also seek comment on what rules might provide incentives for licensees to offer access to devices operating above Part 15 power limits either through secondary markets or an "easment" basis. Although our first choice is that licensees make available these rights via commercial transactions, we recognize that in many cases transaction costs may be too high to enable efficient transactions, and that in some cases licensees may refrain from entering into such transactions to preclude potential competitors. We seek comment on whether high transaction costs or anti-competitive motivations will hinder such transactions.

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[341] WCA Comments in ET Docket No. 02-135, at 10.

[342] *Unlicensed NOI*, ¶ 14.

[343] *See paras.79-82*, *supra*.

[344] 47 C.F.R. § 15.205.

7. RF Safety

149. The Coalition states that to implement its proposed approach, we should amend our RF emissions rules. More specifically, the Coalition contends that we should amend Sections 1.1307(b)(2), 2.1091(c) and 2.1093(c)[345] to include MDS and ITFS services.[346] The Commission considers RF safety procedures to be essential in protecting human beings from excessive exposure to RF energy.[347] Accordingly, we seek comment on whether and how we should amend the RF safety rules.

8. North American Datum (NAD) 83 Coordinate Data

150. The Coalition notes that our rules require the submission of different coordinate data for licensing actions. Applicants submit coordinate data in NAD83 for applications filed on FCC Form 331 but in NAD27 for all other MDS/ITFS forms. The Coalition asks that we require applicants to use NAD83 coordinate data and update or convert the current database.[348] As stated above, we propose to process applications using the ULS. We require NAD83 coordinate data for applications filed under ULS. Accordingly, we propose to require all licensees to file coordinate data using NAD83 and propose to convert existing data to NAD83. We seek comment on these proposals.[349]

9. MDS Response Station Hubs

151. Our existing rules treat hubs like main stations for application processing purposes. For instance, whereas 47 C.F.R. Section 1.1104 contains a special section on the application fee for signal booster applications and for signal booster certification of completion of construction applications ($70.00 in each instance), the rules do not differentiate between requirements for main station applications and certifications and response station hub applications and certifications. At present, the fee for a response station hub on a Form 331 is $210.00, and the fee for the Form 304A is $610.00.[350] Section 21.909 states that an MDS response station hub application must be filed on a Form 331. Licensees of MDS response station hubs must also file a certification of completion of construction application.[351] Response station hubs, signal booster stations and R channels are considered stand-alone stations, and thus have unique facility ID numbers separate from the associated main stations.[352] However, at this time, only signal booster stations are designated for special treatment in the application fee schedule. We do not believe that certifications of completion of construction of two-way hubs will be

[345] *See* 47 C.F.R. §§ 1.1307(b)(2), 2.1091(c) and 2.1093(c).

[346] *See* Coalition Proposal at 20, n.51 and 26.

[347] The existing requirements are located in 47 C.F.R. §§ 1.1307(b), 1.1310, 2.1091 and 2.1093.

[348] Coalition Proposal at 56.

[349] With regard to the Coalition's request to convert the database, we note that the Wireless Bureau has asked MDS and ITFS licensees to review their license data, including coordinate data, to determine if it is correct. *See* Wireless Telecommunications Bureau Seeks to Verify ITFS, MDS and MMDS License Status and Pending Applications, *Public Notice,* DA 02-2751, released Oct. 18, 2002.

[350] *See* 47 C.F.R. §§ 1.1104 and 21.909(c)(1).

[351] 47 C.F.R. § 21.909(h)(i)(2).

[352] *See Public Notice*, Mass Media Bureau Multipoint Distribution Service and Instructional Television Fixed Service Applications Tendered For Filing, Report No. 148, (Nov. 29, 2000).

necessary under the GSA licensing approach that we propose, and therefore propose to eliminate such filing requirements.

10. 2150-2162 MHz band

152. In the *Third Report and Order*, the Commission addressed relocation issues for the MDS channels in the 2150-2162 band. We stated that MDS incumbents would be entitled to comparable facilities and/or adequate replacement spectrum. The Commission noted that "our relocation policies do not dictate that systems be relocated to the same amount of spectrum as they currently use, only that comparable facilities be provided."[353] We further concluded that "[g]iven advances in technology, *e.g.,* changing from analog to digital modulation and the flexibility provided by our existing relocation procedures to make incumbents' whole, we believe that current MDS operations could be accommodated using substantially less spectrum than that of the existing 2150-2160/62 MHz allocation." We then sought comment on how much spectrum was necessary for MDS relocation. The Commission further noted "under our relocation policies only stations with primary status are entitled to relocation."[354]

153. In light of the fact that we do not yet know where MDS licensees operating on Channels 1 and 2 (or 2A) will be relocated, we will not propose changes to service rules for those channels at this time. Depending on the relocated spectrum that MDS licensees receive, additional technical rules may be necessary to accommodate the technical characteristics of that spectrum. Once relocation spectrum for these MDS licensees has been identified, we will issue a further notice of proposed rulemaking in this proceeding seeking comment on service rules for relocated licensees.

11. Radiation from Stations that are Not Engaged in Communications

154. On September 25, 1998, the Commission amended its rules to allow MDS and ITFS licensees to provide a wide range of high-speed, two-way services to a variety of users.[355] On July 29, 1999, the Commission made some additional rule modifications to facilitate the provision of these services.[356] On December 22, 1999, IPWireless, Inc. (IPWireless) requested reconsideration of the Commission's out-of-band emission limitations.[357] On February 10, 2000, the group of over 100 wireless communications system operators, Commission licensees, equipment manufacturers and consultants who

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[353] *See* Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, *Third Report and Order, Third Notice of Proposed Rulemaking*, *and Second Memorandum Opinion and Order*, ET Docket No. 00-258, FCC 03-16, ¶72 (2003) (*AWS Third R&O, Third NPRM, and Second MO&O*).

[354] In 1992, when the 2160-2165 MHz band was reallocated to emerging technologies, the Commission implemented a policy by which incumbent MDS licensees that were using the 2160-2162 MHz band would continue such use on a primary basis. *See* Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, *First Report and Order and Third Notice of Proposed Rule Making*, 7 FCC Rcd 6886, 6889 ¶17 (1992). However, any MDS station that applied for use of this band after January 16, 1992 would be granted only on a secondary basis to emerging technology use. *Id*. at n.22.

[355] *Two-Way R&O*, 13 FCC Rcd 19,112.

[356] Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order on Reconsideration*, 14 FCC Rcd 12,764 (1999) (*Two-Way R&O on Recon*).

[357] IPWireless, Inc. Petition for Reconsideration, filed Dec. 22, 1999.

were parties to the Petition for Rulemaking that commenced the *Two-Way Proceeding* (collectively, Petitioners) did not oppose IPWireless' petition, but sought clarification of Sections 21.909(m) and 74.939(o) of our Rules.[358] The Petitioners indicated that there was some uncertainty within the industry as to the meaning of the language, "Radiation of an unmodulated carrier and other unnecessary transmissions are forbidden."[359]

155. The Petitioners requested clarification that this language requires a response station's transmitter to be biased off so that no RF Gaussian noise is emitted when the station is not engaged in communications.[360] The Petitioners argued that this interpretation assures the protection of the noise floor of adjacent channel and adjacent market licensees against unnecessary emissions from transceivers.[361] On May 11, 2000, the Petitioners and IPWireless notified the Commission that it had reached a compromise concerning the appropriate level of emissions that a response station may generate when not directly engaged in communications with a response hub.[362]

156. The Petitioners and IPWireless requested amendment of Sections 21.909(m) and 74.939(o) of our Rules to provide that when a response station is not in communications with its associated hub, it must restrict its field strength.[363] First, they proposed to set the permissible level of RF Gaussian noise at 10 microvolts/meter per 1 MHz bandwidth at a distance of 3 meters for response stations utilizing antennas with 6 dB or less gain over isotropic. Second, they proposed to set the permissible level of RF Gaussian noise at 10 microvolts/meter x 10exp[(antenna gain - 6 dB) / 20] per 1 MHz bandwidth at a distance of 3 meters for stations utilizing antennas with more than 6 dB gain over isotropic.[364]

157. We note that the Commission agreed to clarify this issue and sought comment[365] on specific issues relating to this matter.[366] In this *NPRM & MO&O*, we are seeking comments on comprehensive changes to the interference rules that would apply in these services. In light of that fact, we seek further comment on whether the rules changes suggested by the Petitioners are still necessary or appropriate. We note that other services do not have a similar requirement. We ask commenters who support imposition of such a requirement to explain the need for such a requirement in light of other

[358] Petitioners Consolidated Comments and Partial Opposition at 5 (Consolidated Comments) filed Feb. 10, 2000. Although the Commission inadvertently indicated that WCA requested clarification, we take this opportunity to correct the record to reflect that the Petitioners requested clarification of this issue. *See* Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order on Further Reconsideration and Further Notice of Proposed Rulemaking*, 15 FCC Rcd 14,566, 14,576 (2000) (*Two-Way FNPRM*).

[359] Petitioners Consolidated Comments at 6.

[360] *Id*.

[361] *Id.*

[362] Petitioners and IPWireless, *Ex Parte*, filed May 11, 2000.

[363] *Id.* at 1.

[364] *Id.*

[365] *Two-Way FNPRM*, 15 FCC Rcd at 14,576.

[366] *Two-Way FNPRM*, 15 FCC Rcd 14,576-7 ¶¶ 39-40.

changes we are proposing to our technical rules.

158. In a related matter, we also seek comment on requiring that subscriber handsets not transmit unless a base station pilot is present. Such a rule could be necessary in order to avoid interference to existing operations.

F. Standardization of Practices and Procedures

1. Consolidation of Procedural Rules in Part 1

159. With the adoption of the *ULS R&O*, the Commission consolidated the majority of its wireless services procedural rules into Part 1.[367] By consolidating the procedural rules in Part 1, the Commission improved the consistency of its rules across wireless services and provided a single point of reference for applicants, licensees, and the members of the public seeking information regarding our licensing procedures.[368] Additionally, the consolidation reduced confusion among applicants and licensees, accelerated the application process, and improved the speed with which wireless carriers were able to provide service to the public.[369] We believe that consolidating the MDS and ITFS procedural rules into one rule part will decrease confusion concerning the application of our MDS and ITFS rules. Because we believe that consolidation will benefit applicants, licensees and members of the public, we propose to consolidate the MDS and ITFS procedural rules into Part 1. We invite comment on this proposal.

2. Consolidation of Service Specific Rules in Part 101

160. Currently, three rules parts - Parts 21, 73 and 74 – contain our MDS and ITFS service specific rules. Part 21 contains our MDS rules while Parts 73 and 74 contain our ITFS rules. Although MDS and ITFS licensees use their licenses to provide similar services, our rules treat these licensees differently. We believe that regulatory parity will lead to efficiency in this band and spur the development of new and improved services for the public. Additionally, we believe that consolidating the MDS and ITFS service specific rules into one rule part will reduce confusion and provide a single reference point for these similar services. Because we believe that consolidation will benefit applicants, licensees and members of the public, we propose to consolidate the MDS and ITFS service specific rules into Part 101. We also seek comment on alternative means of consolidating the rules relating to these services, such as incorporating the rules into Parts 21 or 27 of our Rules.

3. Standardization of Major and Minor Filing Requirements

161. The license modification rules for MDS and ITFS are spread across seven rules. MDS licensees submit FCC Forms 304 or 331 to modify their licenses pursuant to Sections 21.40 and 21.41 of our Rules.[370] For a "major modification" to an MDS station, the Commission will not grant the modification unless it finds that the modification is in the public interest and in compliance with

[367] Biennial Regulatory Review – Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87, 90, 95, 97, and 101 of the Commission's Rules to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services, *Report and Order*, 13 FCC Rcd 21,027, 21,054 ¶ 56 (*ULS R&O*).

[368] *Id*.

[369] *Id*.

[370] 47 C.F.R. §§ 21.40, 21.41.

Communications Act.[371] A major modification to an MDS license would also include an amendment that would require submission of an environmental assessment, would result in a substantial and material alteration of the proposed service, specifies a substantial change in beneficial ownership or control, or is deemed substantial by the Commission pursuant to section 309 of the Communication Act.[372]

162. Our existing rules require an ITFS licensee to file a formal application on FCC Form 330 for any of the following kinds of changes or modifications to its transmission system: adding a new channel; changing channels; changing polarization; increasing the EIRP in any direction by more than 1.5 dB; increasing the transmitting height by twenty-five feet or more; or relocating a facility's transmitter site by ten miles or more.[373] Our rules further provide that applications for "major changes" to existing ITFS facilities that are mutually exclusive with other such applications or with applications for new stations are subject to competitive bidding.[374] ITFS minor modification applications may continue to be filed at any time and are not be subject to competitive bidding.[375] Our rules also permit certain parties, subject to Commission approval, to modify involuntarily the facilities of an existing ITFS licensee in certain situations.[376]

163. We have adopted one set of modification rules for the services that we license using the ULS.[377] This consolidation of modification rules has led to efficient processing of modification applications in ULS. We treat all major modifications as new applications in ULS.[378] Licensees may make minor modifications as a matter of right without prior Commission approval (other than pro forma assignments and transfers) within thirty days of implementing such changes.[379] Where other rule parts permit licensees to make permissive changes to technical parameters without notifying the Commission (e.g., adding, modifying, or deleting internal sites), no notification is required.[380] Although there are

[371] *See* 47 C.F.R. § 21.40. A major modification for an MDS license includes a substantial modification of the engineering proposal such as (but not limited to) a change in, or addition of, a radio frequency channel; a change in polarization of the transmitted signal; a change in type of transmitter emission or an increase in emission bandwidth of more than ten percent; a change in the geographic coordinates of a station's transmitting antenna of more than ten seconds of latitude or longitude or both; any change which increases the antenna height by three meters or more; any technical change that would increase the effective radiated power in any direction by more than 1.5 dB; or any changes or combination of changes that would cause harmful electrical interference to an authorized facility or result in a mutually exclusive conflict with another pending application. 47 C.F.R. § 21.23.

[372] *Id.*

[373] 47 C.F.R. § 74.951.

[374] 47 C.F.R. § 73.5000. We note that our rules permit ITFS licensees to exchange channels evenly with each other or with MDS licensees after filing pro forma applications. 47 C.F.R. § 74.902(f).

[375] Implementation of Section 309(j) of the Communications Act – Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service Licenses, *First Report and Order,* 13 FCC Rcd 15,920 ¶ 207 (1998).

[376] *See* 47 C.F.R. § 74.986.

[377] *See* 47 C.F.R. § 1.929.

[378] *See* 47 C.F.R. § 1.947.

[379] *See* 47 C.F.R. § 1.929.

[380] *See* 47 C.F.R. § 1.947(b).

similarities between our current MDS and ITFS license modification rules, we believe that there are substantial benefits to employing the simplified approach we use in ULS to the MDS and ITFS licenses. We believe that using our Part 1 ULS modification rules will reduce confusion with regards to the appropriate rules to use, increase the speed with which the Commission staff processes applications and will eliminate redundancy in our rules. Accordingly, we propose to use our Part 1 modification rules to determine major and minor modifications for MDS and ITFS licenses. We seek comment on this proposal.

4. Amendments to New and Modification Applications

164. The MDS community apparently did not raise any objections to the procedural rules regarding the filing of amendments in the Services in response to the Coalitions proposals. However, our consolidated approach to amendments for wireless applications[381] differs in some respects with our approach to amendments for MDS/ITFS applications.[382] We must reconcile these differences. For instance, we must address the treatment of major amendments, and amendments regarding ownership and auction services. MDS operators have recommended that we revise our MDS/ITFS rules to use the same definitions for major and minor amendments as for major and minor modifications.[383] We invite comment on whether to adopt the consolidated wireless procedures for amendments to applications. Furthermore, ITFS applicants may amend applications to cure defects noted in deficiency letters to the applicant. MDS BTA applicants may amend a long-form application up to the date the application has appeared on public notice as accepted for filing or by written petition demonstrating good cause if the application is already on public notice.

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[381] Our rules treat certain amendments as new applications that receive a new filing date as of the date the applicant submits the amendment. Amendments that we treat as new applications include applications submitted up to fourteen days after the application appeared as accepted on public notice and that reflects any change in the technical specifications of the proposed facility; submitted with a new or modified analysis of potential interference to another facility; or submitted with an interference consent statement from a neighboring licensee. 47 C.F.R. § 21.23. In such cases, the amended application must include an applicant certification that it has met all requirements regarding interference protection to existing and prior proposed facilities, and that it has obtained any necessary consent letters in lieu of interference protection. The applicant must also certify that it has served all potentially affected parties with copies of its amended application and engineering materials, and that the engineering analyses comply with the rules and methodology. *See* 47 C.F.R. §§ 21.23, 73.3522(a). Furthermore, ITFS applicants may amend applications to cure defects noted in deficiency letters to the applicant. *See* 47 C.F.R. § 73.3522(a). MDS BTA applicants may amend a long-form application up to the date the application has appeared on public notice as accepted for filing or by written petition demonstrating good cause if the application is already on public notice. *See* 47 C.F.R. § 21.926. In both Services, applicants may not amend applications if the proposed amendment seeks more than a pro forma change of ownership or control.

[382] Generally, under our consolidated approach for processing wireless applications, applicants may file amendments to pending applications as a matter of right if we have not designated the application for hearing or listed it in a competitive bidding public notice as accepted for filing. *See* 47 C.F.R. § 1.927. Where an amendment to an application constitutes a "major change" as defined in Section 1.929, we treat the amendment as a new application for determination of filing date, public notice, and petition to deny purposes. *See* 47 C.F.R. § 1.927(h). Where an amendment to an application specifies a substantial change in beneficial ownership or control (de jure or de facto) of an applicant, the applicant must provide an exhibit with the amended application containing an affirmative, factual showing as set forth in Section 1.948(h)(2). *See* 47 C.F.R. § 1.927(g).

[383] Memorandum to WCA Government Relations Committee from Paul J. Sinderbrand, Esq., Petition for Rulemaking - Amendment of Parts 21 and 74, at 11, August 1, 2001.

5. Assignments of Authorization and Transfers of Control

165. MDS licensees use FCC Form 305 to apply for voluntary assignments; involuntary assignments; and pro forma assignments and FCC Form 306 to apply for voluntary transfers of control, involuntary assignments, and pro forma transfers of control.[384] These licensees use FCC Form 304A to request a partial assignment.[385] However, the assignor should apply for deletion of the assigned facilities, indicating concurrence in an assignee's request.[386] The parties must consummate these transactions within forty-five days from the date of approval.[387] If the parties fail to consummate a partial assignment, the parties must submit FCC Form 304A to return the assignor's license to its original condition.[388] Before the Commission will consent to these transactions, the assignor/transferor must complete construction of the facility and file a certificate of completion of construction.[389]

166. The assignor/transferor must file the certificate of construction within one year from the initial license grant date, the consummation date of the transaction; or median date of the applicable commencement dates if the transaction involves a system of two or more stations. The Commission also requires an assignee/transferee to file FCC Form 430 License Qualification Report with the appropriate application form (Form 305 or Form 306) unless the assignee or transferee already has a current and substantially accurate report on file with the Commission. Finally, the parties of both transactions must notify the Commission of the date of consummation, by letter, within ten days of the date of consummation.

167. ITFS licensees use one form, FCC Form 330, to request an assignment of license or a transfer of control.[390] With both types of transactions, ITFS licensees must file their applications at least forty-five days before the contemplated effective date of the transaction.[391] However, in the case of an involuntary transaction, notification must be made to the Commission, in writing, promptly after the death or legal disability of a licensee.[392] Additionally, the Commission requires the filing of an application for

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[384] *See* 47 C.F.R. § 21.11(d) (Assignment of License); 47 C.F.R. § 21.11(e) (Transfer of control of corporation holding a conditional license or license); 47 C.F.R. § 21.13 (General Application Requirements); 47 C.F.R. § 21.15 (Technical Content of Applications); 47 C.F.R. § 21.17 (Certification of Financial Qualifications); 47 C.F.R. § 21.19 (Waiver of Rules); 47 C.F.R. § 21.38 (Assignment or Transfer of Station Authorizations); 47 C.F.R. § 21.39 (Considerations Involving Transfer or Assignment Applications); 47 C.F.R. § 21.912 (Cable Television Eligibility Requirements and MDS/Cable Cross Ownership); 47 U.S.C. § 310 (Limitation on Holding and Transfer of Licenses (Alien Ownership Restriction).

[385] 47 C.F.R. § 21.11(e).

[386] *Id.*

[387] *Id.*

[388] *Id.*

[389] *See* 47 C.F.R. § 21.934. We note that exceptions exist if there is not a substantial change in ownership or control of the authorized facility from the transaction (assignment/transfer); involuntary transaction due to the licensee's bankruptcy, death, or legal disability; and if the transaction involves BTA authorizations. *See id.*

[390] *See* 47 C.F.R. §§ 74.910, 73.3500.

[391] *See* 47 C.F.R. § 73.3540.

[392] *See* 47 C.F.R. § 73.3541.

involuntary transaction within thirty days of such occurrence.[393]

168. When the Commission developed FCC Form 603 to process assignment of license and transfer of control applications in ULS, the Commission recognized there would be significant benefits to eliminating inconsistencies between similar services. Specifically, the Commission found that replacing service specific forms with consolidated forms would provide the public with a consistent set of procedures and filing requirements and would increase the speed and accuracy of the assignment and transfer process.[394] Although there are some differences in the information requirements for transfers and assignments, there is a sufficient degree of overlap in the information that both types of applicants supply that both MDS and ITFS applicants can use the FCC Form 603 for transfers and assignments. Furthermore, we designed the FCC Form 603 so that the applicant only has to answer the questions pertinent to the type of transaction involved.[395] We propose to revise our MDS and ITFS transaction requirements to conform to and merge with the ULS requirements in Section 1.948 of our rules.

169. Specifically, we propose to eliminate the prior consent requirement for non-substantial, pro forma assignments in MDS, and extend the consummation notice period to 180 days for both services. We believe these changes will lessen the administrative burden on applicants, licensees, and Commission staff,. With regard to involuntary assignments, we propose to integrate the MDS rules into our ULS consolidated rules. We invite comment on this integration.

170. Further, we propose to revise our channel exchange procedures[396] to conform to our assignment of license procedures. Currently, our rules require both the filing of a major modification application to change a frequency assignment[397] and each licensee seeking to exchange channels to file in tandem with the Commission separate *pro forma* assignment applications.[398] Furthermore, our engineers must generate and enter a minor modification application into BLS for each channel the parties seek to exchange. We find that this channel exchange procedure is unduly burdensome upon licensees and the Commission's resources. The MDS/ITFS community has also asked that we make changes in this area.[399] We propose instead to require the licensees involved to treat channel exchanges like any other set of license transfers, i.e., to file two or more applications showing the transferor and transferee for each channel or set of channels being transferred.

6. Partitioning and Disaggregation

171. In other services where we have implemented geographic area licensing[400] we have

[393] *See* 47 C.F.R. § 73.3541.

[394] *ULS R&O*, 13 FCC Rcd at 21079 ¶ 113.

[395] *Id.*

[396] *See* 47 C.F.R. §§ 21.901(d); 74.902(f); 74.951(e).

[397] *See* 47 C.F.R. § 74.951(e).

[398] *See* 47 C.F.R. § 74.902; *see also* 47 C.F.R. § 21.901.

[399] Coalition Proposal at Appendix B n.49.

[400] *See*, *e.g.*, 47 C.F.R. §§ 27.15, 101.535, 101.1111, 101.1323.

allowed licensees to partition their service areas and to disaggregate their spectrum.[401] MDS BTA licensees may partition their spectrum.[402] We seek comment on whether allowing such flexibility here to all licensees will promote efficient spectrum use, rule consistency and facilitate market entry by parties who may lack the financial resources for participation in ITFS auctions such as small businesses, educational, telemedicine or medical institutions. The Coalition also supports allowing disaggregation and partitioning to the maximum extent possible.[403] Should we allow geographic area licensees of current ITFS channels to partition and disaggregate. Under this proposal, licensees could file for partial assignment of a licensee, and licensees could apply to partition their licensed geographic service areas or disaggregate their licensed spectrum at any time following grant of their geographic area licensee. The area to be partitioned would be defined by the partitioner and partitionee. The partitionee or □isaggregate would be authorized to hold its license for the remainder of the partitioner's or disaggregator's license term, and would be eligible for renewal expentancy on the same basis as other licensees. There would be no restriction on the amount of spectrum disaggregated and we would permit combined partitioning and disaggregation. Licensees that partition and disaggregate would be subject to provisions against unjust enrichment. We also propose to eliminate any separate provisions relating to "channel swapping" and rely upon the ability of licensees to partition and disaggregate their spectrum.[404]

172. We also seek comment on factors other than geography or frequency that licensees might reasonably use when disaggregating their licenses. For example, the *Spectrum Policy Report* discusses the possibility that licensees might also be willing to sell off parts of their license rights on the basis of time slots and power levels.[405] That report suggests that frequency-agile transceivers are already capable of sensing if a given channel is in use at a particular moment in time, by switching channels, reducing power, or remaining silent until a channel becomes available. Should we afford licensees in this band the right to sell spare capacity on that basis to others, on a preemptible basis?

7. License Renewal

173. Except for special temporary authorizations (STAs), MDS licensees must file FCC Form 405, in duplicate, to renew their licenses.[406] They must file the form between thirty and sixty days before the expiration date of the license to be renewed.[407] A licensee shall automatically forfeit its license in whole or in part without further notice to the licensee upon the expiration of the license period specified therein, unless prior thereto an application for renewal has been filed with the Commission.[408] An MDS licensee may seek reinstatement of its licenses by filing a petition within 30 days of the license's

[401] "Partitioning" is the assignment of geographic portions of a license along geopolitical or other boundaries. "Disaggregation" is the assignment of discrete portions of "blocks" of spectrum licensed to a geographic area licensee or qualifying entity.

[402] 47 C.F.R. § 21.931.

[403] Coalition Proposal at 13.

[404] *See, e.g.*, 47 C.F.R. § 21.901, 47 C.F.R. § 74.902.

[405] *Spectrum Policy Report* at 19.

[406] *See* 47 C.F.R. § 21.11(c).

[407] *Id*.

[408] *See* 47 C.F.R. § 21.44(a)(2).

expiration explaining the failure to timely file the required notification or application and setting out with specificity the procedures that the petititioner has established to ensure that such filings will be submitted on time in the future..[409] Generally, a license period is ten years. The terms of MDS station licenses granted on the basis of underlying BTA service area authorizations obtained by competitive bidding extend until the end of the ten-year BTA authorization.[410]

174. ITFS licensees must file an FCC Form 330-R to renew a license.[411] Unless otherwise directed by the FCC, ITFS licensees must file their renewal applications no later than the first day of the fourth full month prior to the expiration date of the license to be renewed.[412] Licensees in auctionable services file FCC Form 601 no later than the expiration date of the authorization for which renewal is sought, and no sooner than ninety days prior to expiration. The Commission will reinstate expired ITFS licensees if the former licensee files a timely petition with adequate justification.[413]

175. The Commission designed ULS to provide wireless licensees with a pre-expiration notification approximately ninety days before their licenses expire and thereby avoid situations in which licensees allow their licenses to expire inadvertently and subsequently seek reinstatement.[414] The Commission provides pre-expiration letters of reminder to all wireless radio services licensees by regular mail. Specifically, the Commission sends letters of reminder to all wireless radio service licensees, both site-specific and geographic area licensees, ninety days before the expiration of their licenses. Although a license expires automatically on the date specified on the individual license, ULS does not show a license expiration as final until approximately thirty days after the renewal deadline. We note that while we generally provide renewal notices to licensees, the pre-expiration notice is not a prerequisite to cancellation should a licensee fail to renew its license. After the license expiration, the previous licensee may file a new application for use of those frequencies subject to any service specific rules. Once that thirty-day period has elapsed, or the prior holder of the license files a new application for that spectrum, the license then becomes available for the Commission to reassign by competitive bidding or other means according to the rules of the particular service.[415]

176. In 1999, the Commission adopted a new policy regarding treatment of late-filed renewal applications in the Wireless Radio Services.[416] Renewal applications that are filed up to thirty days after

[409] *See* 47 C.F.R. § 21.43(b).

[410] *See* 47 C.F.R. § 21.929(b).

[411] *See Public Notice*, Wireless Telecommunications Bureau Suspends Electronic Filing for the Broadband Licensing System on October 11, 2002 , 17 FCC Rcd 18,365 (2002).

[412] *See* 47 C.F.R. § 73.3539.

[413] *See, e.g.,* Jonsson Communications Corp*., Memorandum Opinion and Order*, (DA 02-3099, released Nov. 13, 2002). There is no codified rule specifically addressing reinstatement of ITFS licenses.

[414] *ULS R&O*, 13 FCC Rcd at 21071 ¶ 96.

[415] *See* Rules and Regulations to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Service, 63 Fed. Reg. 68904, 68908 (1998).

[416] *See* Biennial Regulatory Review - Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87, 90, 95, and 101 of the Commission's Rules to Facilitate Development and Use of the Universal Licensing System in the Wireless Telecommunications Service, *Memorandum Opinion and Order on Reconsideration*, WT Docket No. 98-20, 14 FCC Rcd 11476, 11485 ¶ 22 (1999).

the expiration date of the license are granted *nunc pro tunc* if the application is otherwise sufficient under our Rules.[417] However, the licensee may be subject to an enforcement action for untimely filing and unauthorized operation during the time between the expiration of the license and the untimely renewal filing.[418] Applicants who file renewal applications more than thirty days after the license expiration date may also request renewal of the license *nunc pro tunc*, but such requests are not routinely granted, and are subject to stricter review, and may be accompanied by enforcement action, including more significant fines or forfeitures.[419] In determining whether to grant a late-filed renewal application, we take into consideration all of the facts and circumstances, including the length of the delay in filing, the reasons for the failure to timely file, the potential consequences to the public if the license should terminate, and the performance record of the licensee.[420]

177. We believe that elimination of the reinstatement period will benefit all licensees and entities interested in acquiring abandoned spectrum.[421] Under our ULS procedures, failure to file for renewal of the license before the end of the license term results in automatic cancellation of the license.[422] We believe that we should eliminate reinstatement of expired licenses because licensees will receive notification that their licenses are about to expire and, therefore, should be responsible for submitting timely renewal applications. Additionally, interactive electronic filing will make it easier for all licensees to timely file renewal applications. Moreover, we believe elimination of the reinstatement procedures will facilitate our ability to efficiently, and quickly perform our licensing responsibilities by reducing the amount of late-filed renewal applications and eliminating the processing of reinstatement applications. Accordingly, we propose to eliminate reinstatement procedures and adopt the late-filed renewal policy for wireless radio services for MDS and ITFS. We seek comment on this proposal. Additionally, we seek comment on whether we should impose any special requirements or limitations on the renewal of ITFS licenses. For example, we seek comment on the possibility of imposing special performance requirements on ITFS licensees in order to ensure efficient utilization of the spectrum. We seek comment on these proposals.

8. Special Temporary Authority

178. In MDS, in circumstances requiring immediate or temporary use of facilities, entities may request special temporary authority to install and/or operate new or modified equipment.[423] Requests may be submitted as informal applications, at least ten days prior to the date of the proposed construction or operation (however, in practice an FCC Form 304 is attached to the informal request).[424] We may grant STAs without regard to the thirty-day public notice requirement in certain instances. First, we may grant

[417] *See id*. at 11485 ¶ 22.

[418] *Id*.

[419] *Id*.

[420] *Id*. at 11485-6 ¶ 22.

[421] *ULS R&O,* 13 FCC Rcd at 21,071 ¶ 96. The Commission excluded Commercial Radio Operators Licenses and Amateur licenses from this policy. *Id*.

[422] *Id*.

[423] *See* 47 C.F.R. § 21.25.

[424] 47 C.F.R. § 21.5.

an STA when the STA period is not to exceed thirty days and the filing of an application to change the STA into a permanent situation is not contemplated. Second, we may grant an STA when the STA period is not to exceed sixty days, pending the filing of an application to change the special situation into a regular operation. Third, we may grant an STA to permit interim operation to facilitate completion of authorized construction or to provide substantially the same service as previously authorized. Fourth, we may grant an STA when there are extraordinary circumstances requiring operation in the public interest. We may grant STAs and extensions of STAs up to 180 days pursuant to Section 309(f) of the Communications Act where extraordinary circumstances so require, but the licensee has a heavy burden to show it warrants such action. Finally, in times of national emergency or war, we may grant special temporary licenses (in place of construction permits, station licenses, modifications or renewals) for the period of the emergency.[425]

179. We may grant ITFS STAs in extraordinary circumstances requiring emergency operation to serve the public interest.[426] As in MDS, only an informal application is required. However, ITFS STA applicants must submit the request at least ten days before the date of the proposed operation. We may grant ITFS STAs for a period not to exceed 180 days with a limited number of extensions also granted for up to 180 days. However, we may grant an STA necessitated for technical reasons for an initial period of ninety days only.

180. Under our consolidated ULS approach, applicants must file STA requests electronically on an FCC Form 601 within ten days before the date of the proposed operation (although we may grant requests received less than ten days for compelling reasons).[427] As in MDS/ITFS, grant of STAs are without public notice. Wireless Services have the same requirements as MDS/ITFS for thirty, sixty, and 180-day STA requests. In addition, since MDS STA requests are informal applications, but in practice have an FCC Form 304 attached, adoption of the Form 601 for MDS/ITFS STA requests as currently used in WTB makes good sense. Since STAs are an emergency measure, mandatory electronic filing as now required in WTB, would also provide MDS/ITFS licensees with faster, more responsive service. For the foregoing reasons, we propose to include MDS and ITFS STA requests under the same ULS regulatory regime as the Wireless Services. We request comment on this proposal.

9. Ownership Information

181. MDS and ITFS licensees file FCC Form 430 to submit ownership information to the Commission. The Communications Act mandates the ownership information requested in Form 430.[428] The submission of ownership information enables the Commission to review whether applicants and licensees comply with our real-party-in-interest rules, eligibility for treatment as a small business at auction and foreign ownership restrictions.[429] Wireless licensees use Form 602 to file ownership information electronically in ULS.[430] FCC Form 602 and FCC Form 430 request the same ownership

[425] *Id.*

[426] *See* 47 C.F.R. § 73.3542; *see also* 47 C.F.R. §§ 73.1635; 74.910.

[427] *See* 47 C.F.R. § 1.931.

[428] *See* 47 U.S.C. § 310.

[429] *See ULS NPRM*, 13 FCC Rcd 9672, 9691 ¶ 43 (1998).

[430] ULS will pre-fill information that the licensee has previously submitted on a Form 602, enabling the licensee to limit new submissions to changed information, and ULS can also fill in certain parts of a Form 602 by reference to (continued….)

information.[431] On June 14, 2002, the Wireless Bureau stopped accepting electronically filed Forms 430 temporarily.[432] Therefore, in the short term, MDS and ITFS licensees may continue to file the Form 430 manually. The Form 430 requires the licensee to list its MDS and/or ITFS licenses or conditional licenses. We seek comment on whether this requirement is necessary in light of the proposed transition to ULS.[433] Additionally, we propose to require MDS and ITFS licensees to file Form 602 instead of Form 430 to submit ownership information. We request comment on this proposal.

10. Regulatory Status

182. Consistent with our goal to maximize flexibility to the extent possible, we tentatively conclude that MDS and ITFS applicants may request more than one regulatory status for authorization in a single license. Thus, under this approach, an MDS or ITFS license may authorize a combination of common carrier and non-common carrier services in a single license and licensees in this band may render any kind of communications service (*e.g.,* fixed, mobile, point-to-multi-point) consistent with that regulatory status and the existing rules. This approach is consistent with the approach we have used for other services licensed on a geographic area basis.[434] Applicants would not be required to describe the services they seek to provide but would be required to designate the regulatory status of services they intend to provide using the Form 601.[435] We seek comment on what procedures to adopt for licensees to change their regulatory status (*i.e.,* notify the Commission within a certain timeframe or seek prior approval).

11. Fee Issues

183. Currently, MDS applicants and licensees are subject to application fees under Section 8 of the Act, which directs the Commission to assess and collect charges for applications and other filings by regulated entities.[436] These fees were initially set by statute and are subject to adjustment by the Commission [437] MDS licensees are also subject to regulatory fees under Section 9 of the Act.[438] We collect these fees to recover the regulatory costs associated with our enforcement, policy and rulemaking,

(Continued from previous page)
other previously filed information. For example, if Party A has previously submitted its own ownership filing and is subsequently listed as a disclosable interest holder on the ownership filing of of another licensee (Party B), Party A's FCC-regulated businesses may be automatically copied to Party B's filing. *Public Notice*, Wireless Telecommunications Bureau Announces Availability of Electronic Filing of FCC Form 602, 17 FCC Rcd 16,779 (2002).

[431] *See Public Notice*, Wireless Telecommunications Bureau Answers Frequently Asked Questions Concerning Reporting of Ownership Information on FCC Form 602, DA 99-1001 (May 25, 1999).

[432] *Public Notice*, Wireless Telecommunications Bureau to Temporarily Suspend Electronic Filing of FCC Form 430 via the Broadband Licensing System, 17 FCC Rcd 11,131 (2002).

[433] *See* para. 176 *supra*.

[434] *See e.g.,* 47 C.F.R. § 27.10; 47 C.F.R. § § 101.511 and 101.133.

[435] *ULS R &O*, 13 FCC Rcd 21027 at Appendix C.

[436] 47 U.S.C. § 158.

[437] *Id.* § 158(b).

[438] 47 U.S.C. § 159.

user information, and international activities.[439] Currently, we do not assess ITFS applicants and licensees with either application fees or regulatory fees. The Commission exempted ITFS from application fees because the original statutory schedule of charges did not provide for fees for ITFS applicants and because ITFS stations were "traditionally used by public service organizations."[440]

184. In light of the possible changes to the ITFS service that we are proposing in this proceeding, we seek comment on whether ITFS licensees and applicants (or former licensees of the service, if we decide to reclassify ITFS as a new service) should become subject to application fees and regulatory fees, to the extent that such licensees or applicants do not fall within an express statutory exemption.[441] In light of our contemplated changes to the rules, the fact that MDS and ITFS licensees often provide service as part of the same system, and the fact that ITFS licensees can lease up to ninety-five percent of their capacity to other entities (usually MDS licensees), we seek comment on whether there currently is any valid basis for treating MDS and ITFS applicants and licensees differently for fee purposes. We note that under our proposal, those ITFS licensees that are governmental entities would continue to be exempt under the statute from application fees.[442] We also note that most existing ITFS licensees would likely remain exempt from regulatory fees because they would be covered under the statutory exemptions for governmental entities and nonprofit entities.[443] To the extent we change the eligibility criteria for ITFS, however, we propose to require new licensees that are not statutorily exempt to pay regulatory fees. We seek comment on this proposal.

185. We also seek comment on changing the regulatory fees applicable to MDS licensees. Congress has authorized the Commission to add, delete, or reclassify services in the regulatory fee schedule to reflect additions, deletions, or changes in the nature of its services as a consequence of Commission rulemaking proceedings or changes in law.[444] The instant proceeding proposes major changes to the MDS service, including allowing mobile operation and expediting the use of MDS to provide advanced broadband services. In light of these potential changes, we seek comment on adjusting the regulatory fees for MDS. Currently, we assess MDS stations a regulatory fee of $450 per station.[445] We note that converting MDS stations to geographic area licensing would reduce the number of MDS licenses. Furthermore, to the extent MDS stations begin offering mobile services, it may be appropriate to begin assessing these licensees on a per unit basis, as we do for other mobile services.[446] Accordingly, we seek comment on the appropriate changes to the regulatory fee structure and amount for MDS licensees. To the extent we conclude that ITFS licensees should pay regulatory fees, we tentatively conclude that the regulatory fees for MDS and ITFS licensees should be the same. We seek comment on

[439] 47 U.S.C. § 159(a).

[440] Establishment of a Fee Collection Program to Implement the Provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985, *Notice of Proposed Rulemaking*, 51 Fed. Reg. 25792 ¶ 68 (1986).

[441] Governmental entities are statutorily exempt from Section 8 fees, and both governmental entities and nonprofit entities are statutorily exempt from Section 9 fees. 47 U.S.C. §§ 158(d)(1), 159(h).

[442] 47 U.S.C. § 158(d)(1).

[443] *Compare* 47 U.S.C. § 159(h) (exceptions to regulatory fees) and 47 C.F.R. § 74.932 (ITFS eligibility).

[444] 47 U.S.C. § 159(b)(3). Increases or decreases in fees made by amendments pursuant to this paragraph shall not be subject to judicial review. *Id.*

[445] 47 C.F.R. § 1.1153.

[446] *See* 47 C.F.R. § 1.1152 (CMRS Mobile Services and CMRS Messaging Services).

this tentative conclusion.

12. Discontinuance, Reduction or Impairment of Service

186. The Commission implemented its license forfeiture rules to ensure station operation and alleviate concerns about spectrum warehousing.[447] When considering forfeitures, cancellation and discontinuance of service, an MDS licensee has five separate rule sections to review an ITFS licensee has three separate rule sections to review[448] Because a system can have both ITFS and MDS channels, we believe that consolidating these rules will be advantageous to both the industry and the Commission staff. We tentatively conclude that consolidating these rules will reduce the confusion of the industry as to the appropriate rules and increase the efficiency of the Commission staff in processing these actions. We propose to move, revise, and consolidate these rules in Parts 1 and 101 of our rules.

187. We note that MDS licensees may alternate between providing service as a common carrier or a non-common carrier.[449] However, before alternating, the licensee must notify the Commission of the change at least thirty days before the change.[450] Additionally, common carriers who seek to alternate or who otherwise intend to reduce or impair service must notify all affected customers of the planned discontinuance, reduction, or impairment on or before providing notice to the Commission.[451] These provisions concerning licensees alternating between common carrier and non-common carrier status are not in our Part 101 rules. We invite comment on whether we should retain these rules and consolidate them in Part 101.

188. Through these actions, we are proposing above, we are endeavoring to ensure station operation and to alleviate concerns about the warehousing of spectrum in MDS/ITFS. The MDS/ITFS community, however, has asked us to liberalize the rules on forfeiture of license and discontinuance of service due to the transition of the spectrum to new uses. For instance, the industry has called for a liberalizing of the rules regarding the retention and periodic use of facilities to provide for simpler preservation of downstream authorization for stations operating upstream and to provide for preservation of licenses for channels being used as guard bands.[452] Therefore, we invite comment on the proposals described in this section. We invite alternate proposals that would allow for flexible use of the spectrum while preserving our policy of ensuring station operation and alleviating concerns about the warehousing of spectrum.

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[447] *See* Reorganization and Revision of Parts 1, 2, 21, and 94 of the Rules to Establish a New Part 101 Governing Terrestrial Microwave Fixed Radio Services, WT Docket No. 94-148, *Report and Order*, 11 FCC Rcd 13,449, 13,465 (1996).

[448] *See* 47 C.F.R. §§ 21.44; 21.303; 21.910; 21.932; 21.936; 73.3534; 73.3598; 74.932.

[449] *See* 47 C.F.R. §§ 21.903(d); 21.910.

[450] *See* 47 C.F.R. § 21.903(d) which provides that the notification must state whether there is any affiliation or relationship to any intended or likely subscriber or program originator.

[451] *See* 47 C.F.R. § 21.910 which provides that the notice shall be in writing and shall include the name and address of the carrier, the date of the event, the area(s) affected and the channels that are affected by the event. *Id*. at § 21.910(b).

[452] Coalition Proposal at 44-45.

13. Foreign Ownership Restrictions

189. Sections 310(a) and 310(b) of the Communications Act, as modified by the Telecommunications Act of 1996, impose foreign ownership and citizenship requirements that restrict the issuance of licenses to certain applicants.[453] An applicant requesting authorization only for non-common carrier services would be subject to Section 310(a), but not to the additional prohibitions of section 310(b). An applicant requesting authorization for common carrier services would be subject to both Sections 310(a) and 310(b). We do not believe that common carriers and non-common carriers filing an application to operate in this band should be subject to varied reporting obligations. Rather, as a matter of fostering regulatory parity and transparency, we believe that all applicants should be required to file changes in foreign ownership information to the extent required by Part 101 of our Rules.[454] By establishing parity in reporting obligations, however, we do not propose a single, substantive standard for compliance. For example, we do not and would not deny a license to an applicant requesting authorization exclusively to provide services not enumerated in Section 310(b), solely because its foreign ownership would disqualify it from receiving a license if the applicant had applied for a license to provide the services enumerated in Section 310(b). We request comment on this proposal.

14. Performance Requirements

190. Incumbents in the 2500-2690 MHz band consist of MDS BTA Authorization holders and site-based ITFS and MDS licensees. In addition, as noted above, we are seeking comment on, among other things, whether geographic licensing for unassigned ITFS spectrum would be appropriate. In this section, we discuss the various performance requirements applicable to the categories noted above and seek comment on whether we should retain those requirements or whether we should make changes. We also seek comment on the construction benchmarks we should adopt to encourage licensees to deliver service to rural areas. We note that the Communications Act requires us to adopt policies to deter spectrum warehousing, promote the rapid development and deployment of new technologies and services, and promote service to rural areas.[455]

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[453] 47 U.S.C. § 310(a), (b).

[454] 47 C.F.R. §§ 101.7, 1.913, 1.919. Moreover, as we observed in the *LMDS 2d R&O*, requiring submission of ownership information that may not be immediately necessary to assess the qualifications of a licensee (i.e., one who currently operates as a non-common carrier) is an efficient and reasonable measure to facilitate the flexibility accorded licensees to change status with a minimum of regulatory interference. With this approach, updated information can be used whenever the licensee changes to common carrier status without imposing an additional filing requirement when the licensee makes the change. Moreover, having access to this ownership information allows the Commission to monitor all of the licensed providers more effectively, in light of their ability to provide both common and non-common carrier services. Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service and For Fixed Satellite Services, *Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking,* CC Docket No. 92-297, 12 FCC Rcd 12545 (1997) (*LMDS 2d R&O*).

[455] "[T]he Commission is required under Section 309 (j) of the Communications Act to include 'safeguards to protect the public interest in use of the spectrum' and performance requirements 'to ensure prompt delivery of service to rural areas, to prevent stockpiling or warehousing of spectrum by licensees or permittees, and to promote investment in and rapid deployment of new technologies and services." *WCS Report and Order*, 12 FCC Rcd. at 10841 (quoting 47 U.S.C. § 309(j)(4)(B))(footnote omitted).

191. *MDS BTA Authorization Holders*. Currently, MDS BTA authorization holders have a five-year build-out period, which begins on the date of the grant of the MDS BTA authorization and ends on the fifth anniversary of the authorization grant.[456] This build-out period is not extended by the grant of subsequent authorizations.[457] Timely certifications of completion of construction for each MDS station within a MDS BTA or partitioned service area must be filed on completion of the construction of a station.[458] Within five years of a grant of a MDS BTA-authorization, the authorization holder must construct MDS stations to provide signals pursuant to Section 21.907 of the Commission's Rules[459] that are capable of reaching at least two-thirds of the population of the applicable service area, excluding the populations within protected service areas of incumbent MDS stations[460] and the authorization holder must file sixty days prior to the end of the five-year build-out period that it has met this requirement.[461] If the Commission finds that the authorization holder has met this requirement, the Commission will issue a declaration so stating.[462] If the Commission finds that the BTA authorization holder did not meet this requirement, the Commission will partition from the BTA any unserved area and will reauthorize service to the unserved area pursuant to the MDS competitive bidding procedures[463] and the BTA authorization holder originally authorized to provide service will be ineligible to participate in the auction of the unserved areas.[464] We seek comment on whether we should retain these requirements as they are, or whether they should be changed or clarified in some way. If they should be changed, commenters should recommend specifically those requirements that should be changed, those that should be clarified, and those that should remain unchanged. In the alternative, we seek comment on whether we should adopt a different approach altogether, such as a substantial service approach. We note that for services that require ubiquitous coverage, the Commission has required that at the time of license renewal each geographic area authorization holder demonstrate that it has made "substantial service" available within its authorized service area.[465] The Commission has observed that the substantial service standard affords

[456] *See* 47 C.F.R. § 21.930(a)(1).

[457] *See* 47 C.F.R. § 21.930(a)(2).

[458] *See* 47 C.F.R. § 21.930(a)(3).

[459] 47 C.F.R. § 21.907.

[460] *See* 47 C.F.R. § 21.930(c)(1).

[461] *See* 47 C.F.R. § 21.930(c)(2).

[462] *See* 47 C.F.R. § 21.930(d)(1).

[463] *See* 47 C.F.R. § 21.930(d)(2).

[464] *See* 47 C.F.R. § 21.930(d)(2)(ii).

[465] Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service *("WCS")*, GN Docket No. 96-228, *Report and Order*, 12 FCC Rcd 10785, 10843-45 (1997) (*WCS Report and Order*); *LMDS 2d R&O,* 12 FCC Rcd at 12,659-61, *aff'd Melcher v. FCC*, 134 F.3d 1143, 1161-2 (D.C. Cir. 1998)*;* Amendments to Parts 1, 2, 87, and 101 of the Commission's Rules to License Fixed Services at 24 GHz, WT Docket No. 99-327, *Report and Order,* 15 FCC Rcd 16934, 16950-52 (2000) (*24 GHz Report and Order*); 39 *GHz R&O,* 12 FCC Rcd at 18624-25; Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range, ET Docket No. 98-206, *Memorandum Opinion and Order and Second Report and Order*, 17 FCC Rcd 9614, 9684-9685, ¶ 177 (2002) (*MVDDS Memorandum Opinion and Order and Second Report and Order*).

maximum flexibility for authorization holders to offer a range of services and fosters competition.[466] If we were to adopt a substantial service approach, should we also adopt safe harbors? We ask commenters who believe that we should adopt safe harbors to recommend specific safe harbors. Accordingly, if the Commission adopts a substantial service performance standard, we propose that any licensee who fails to meet the standard with respect to a license will forfeit the license or be ineligible to renew the license pursuant to sections 1.946(c) and 1.955(a)(2) of our rules.[467] Additionally, we propose to eliminate extension of time requests for MDS BTA Authorization holders who must satisfy a substantial service performance standard. We seek comment on this proposal.

192. *Site-based licensees*. As noted above, we are proposing to provide each incumbent on a current ITFS channel and each MDS incumbent with a PSA based on a circle with a 35-mile radius around its main station. Currently, the rules provide MDS incumbent stations with a maximum construction period of twelve months from the date of the license grant.[468] We note that the Commission extended the construction period from eight months to twelve months to provide MDS permittees with sufficient time to meet the construction requirements without requesting extensions of time.[469] ITFS licensees have eighteen months from the date of the issuance of the original construction permit to construct their facilities.[470] We seek comment on whether we should retain these requirements or whether

[466] "Based on the record in this proceeding, we believe that the substantial service standard, in lieu of specific coverage requirements best serves the public interest. In addition to being consistent with the approach used in other wireless services, we believe that this standard is sufficiently flexible to foster expeditious development and deployment of systems and will ultimately create competition among service providers in this band." *24 GHz Report and Order*, 15 FCC Rcd at 16951. "This approach [substantial service] will permit flexibility in system design and market development, while ensuring that service is being provided to the public." *39 GHz Report and Order*, 12 FCC Rcd 18624.

[467] 47 C.F.R. §§ 1.946(c) and 1.955(a)(2). *See also* 47 C.F.R. § 101.1325.

[468] *See* 47 C.F.R. § 21.43(a).

[469] Revision of Part 21 of the Commission's Rules, *Notice of Proposed Rulemaking,* CC Docket No. 86-128, 104 F.C.C.2d 116, 125 n.41 (1986). We permit extensions of time to construct when the authorization holder applies for the extension and submits: 1) a verified statement of diligent efforts to construct, and 2a) the delay is due to circumstances beyond the applicant's control, or 2b) there are unique and overriding public interest concerns. *See* 47 C.F.R. §§ 21.11(b), 21.40(b). A carrier who does not promptly construct facilities precludes others who are willing and able to construct from access to the spectrum." *See* Revision of Part 21 of the Commission's Rules, *Report and Order*, 2 FCC Rcd 5713, 5721 (1987) (*1987 Report and Order*). "In order to ensure timely construction of facilities, the Commission announced its intent to enforce strictly construction deadlines . . . when it established a construction period of 12 months." *See also Miami MDS Co.*, 7 FCC Rcd 4347, 4349 (1992), *aff'd mem, Miami MDS Co., v. FCC*, 14 F.3d 658 (D.C Cir. 1994). Consequently, we do not grant extensions of time for delays caused by the lack of financing or the lack of site availability. *See* 47 C.F.R. § 21.40(b).

[470] *See* 47 C.F.R. § 73.3534(a). The Commission recognized that a one-year period may not be sufficient for ITFS licensees due to the budgeting and scheduling processes for educational institutions could delay the construction of ITFS facilities beyond the one year period." Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service, *Report and Order*, MM Docket No. 83-523*,* 98 F.C.C.2d 925, 935 (1984). However, the Commission provided that ITFS licensees could obtain an extension of time to construct by submitting a specific, detailed narrative statement demonstrating that the delay is due to "causes not under the control of the permittee, or upon a specific and detailed showing of other sufficient justification for extension. *See* 47 C.F.R. § 73.3534(c). An ITFS extension of time applicant must demonstrate that 1) construction is complete and testing of facilities has begun; 2) substantial progress has been made; or 3) (continued….)

they should be changed. Do licensees need more time to construct? If licensees need more time to construct, how much is appropriate? Should MDS and ITFS site-based licensees be given the same time to construct? Or are there reasons to treat MDS and ITFS site-based licensees differently?

193. *Geographic area licensing*. As noted above, we seek comment on whether we should license unassigned ITFS spectrum via a geographic area overlay license. If we were to adopt such an approach, we seek comment on whether we should adopt the same performance standard for geographic licensees of unassigned ITFS spectrum as we do for MDS BTA Authorization holders. Are there any reasons that they should be treated differently? In other words, if we decide to retain the current performance requirements for MDS BTA authorization holders, discussed above, should we apply those same requirements to geographic licensees of unassigned ITFS spectrum? Or, if we were to adopt a substantial service standard for MDS BTA Authorization holders, should we adopt that same standard for geographic licensees of unassigned ITFS spectrum? If not, commenters should specify a different approach for geographic area licensee of unassigned ITFS spectrum. Commenters should also state the reason that licensees of unassigned ITFS spectrum should be treated differently than MDS BTA Authorization holders. We note that commenters to the recent *Extension Memorandum Opinion and Order* proceeding consistently advocated the replacement of the current build-out requirement with a substantial service benchmark.[471] Accordingly, if the Commission adopts a substantial service performance standard, we propose that any licensee who fails to meet the standard with respect to a license will forfeit the license or be ineligible to renew the license pursuant to sections 1.946(c) and 1.955(a)(2) of our rules.[472] Additionally, we propose to eliminate extension of time requests for geographic area licensees who must satisfy a substantial service performance standard. We seek comment on this proposal.

194. *Coalition Proposal*. Although the Coalition did not recommend an overlay approach for licensing unassigned ITFS spectrum, the Coalition did recommend that a transition to a pure geographic licensing system for the Services presents the need and opportunity to adopt revised performance requirements for licensees.[473] Instead of continuing to use site-based licensing procedures, the Coalition advocates using a substantial service requirement at the time of renewal, coupled with safe harbors designed to provide licensees with a measure of certainty and an appropriate period for service activation

(Continued from previous page)

reasons clearly beyond the applicant's control, which the applicant has taken all possible steps to resolve, have prevented construction. *See ITFS Report and Order,* 10 FCC Rcd at 2921. Thus, depending on the circumstances, the lack of funding may warrant an extension of time to construct for an ITFS licensee. *See* Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, and Cable Television Relay Service Gen. Docket No. 90-54, Gen. Docket No. 80-113, Amendment of Parts 21 and 73 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, MM Docket No. 94-131, and Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Third Order on Reconsideration and Order to Clarify*, 11 FCC Rcd 17003, 17011 (1996).

[471] *See e.g.* WCA Comments at 7-11 (filed May 9, 2001); Sprint Comments at 2-3 (filed May 9, 2001); WorldCom, Inc. Comments at 4-6 (filed May 9, 2001); Nucentrix Broadband Networks, Inc. Comments at. 9-10 (filed May 9, 2001); Hubbard Trust Comments at 5 (filed May 9, 2001); Wireless One of North Carolina, L.L.C. Reply Comments at 1-3 (filed May 16, 2001).

[472] 47 C.F.R. §§ 1.946(c) and 1.955(a)(2). *See also* 47 C.F.R. § 101.1325.

[473] Coalition Proposal at 43.

following adoption of the new rules, for those licensees with early forthcoming license expirations.[474]

195. The Coalition argues that using a case-by-case standard to evaluate MDS and ITFS construction is appropriate. Unlike most other services, they assert that MDS/ITFS system operators will provide service using channels combined from a variety of sources – their own BTA authorized stations, incumbent MDS stations they own, and leased capacity of MDS and ITFS stations licensed to others.[475] Thus, focusing solely on the population served via stations authorized pursuant to a particular license hardly tells the story as to whether the licensee is providing adequate service to the public.[476] In fact, they say, the Commission should recognize that in some cases a licensee may not use particular spectrum covered by one license, or certain channels authorized by a license, that is part of a larger operating system at the time of renewal. Instead, the licensee may use the spectrum in the system as a guard band – not used in the classic sense, but they argue a critical component of the system design.[477]

196. Alternatively, they say, the licensed spectrum may not be built-out, but instead the system operator may hold the spectrum for future use as the demands of the operating system expand.[478] Still licensees may construct other systems for use by particular constituents rather than the general population covered by a GSA.[479] The Coalition maintains that it is also essential that system operators just launching systems hold spectrum in reserve to address increases in demand and that there is no valid reason to penalize MDS and ITFS licensees for providing that spectrum. Particularly with respect to licenses that come up for renewal in the early years of MDS/ITFS broadband deployment, they assert that a channel-by-channel evaluation will not provide an accurate assessment of service development.[480] For those reasons, they conclude, the flexibility inherent in the case-by-case application of the substantial service standard provides the Commission with a means of examining the entire picture.[481]

197. The Coalition recommends that we clarify that a substantial service evaluation will include not only the service areas of incumbent stations that are directly owned by the entity, which holds the BTA authorization, but also the service areas of incumbent stations owned by any entity controlled by the same ultimate parent company as is the BTA authorization holder.[482] We seek comment on the Coalitions recommendations.

198. *Rural areas*. We seek comment on whether and how we may use construction benchmarks to encourage licensees to deliver wireless services to rural populations. To what extent are our current construction benchmarks effective in ensuring that spectrum-based services are provided to

[474] *Id.*

[475] *Id*. at 45.

[476] *Id*. at 47-48.

[477] *Id*. at 45.

[478] *Id*. at 46.

[479] *Id.*

[480] *Id.*

[481] *Id.* at 45-46.

[482] Coalition Proposal at 49.

rural areas? In what instances, and under what circumstances, should the Commission adopt a population-based, geography-based, or substantial service construction benchmark? For example, in licensing service areas that are predominantly rural, should the Commission adopt geography-based construction benchmarks? Are there other types of construction benchmarks that would promote service to rural regions better? For instance, should we adopt a separate construction benchmark applicable only to service areas that constitute rural areas? Alternatively, should we revise our current construction benchmarks to permit service providers to serve either smaller portions of the population or service area if they meet a second construction benchmark applicable to the rural portions of a licensee's market? If so, commenters should explain what construction benchmarks we should adopt for the rural portions of the service area and how to determine whether an area is rural? If, as suggested above, we were to require licensees to disaggregate or partition unused spectrum or unserved portions of geographic service areas, should we adopt additional construction benchmarks to implement this requirement? If so, what penalties should the Commission impose on licensees for failure to timely meet such additional construction benchmarks? The Commission has generally accepted certifications of CMRS carriers that they have met their construction benchmarks.[483] To what extent are our self-certification procedures an adequate means of ensuring compliance with our construction benchmark requirements?

199. *Extension/Suspension of current performance requirements for MDS BTA Authorization holders*. The Coalition requests that we immediately suspend the MDS BTA build-out deadline in Section 21.930, as extended by the *MDS Build-Out Extension Order*, while our build-out policy for this service remains subject to pending rulemaking proceedings.[484] We note that on August 16, 1996, the Commission granted 334 of the 493 BTA authorizations.[485] As a result, the five-year build-out period for these authorizations ended on August 16, 2001. However, before the end of the build-out period, the former Mass Media Bureau extended the construction deadline for BTA authorizations to August 16, 2003 or the existing build-out date, whichever is later.[486] The former Mass Media Bureau found that a maximum of two years would be a sufficient amount of time to allow the MDS industry to build-out its facilities and provide new and innovative two-way services to the public.[487] The former Mass Media Bureau found that a longer extension period would unreasonably delay MDS entry in both rural and urban markets.[488] At that time, the former Mass Media Bureau indicated that the Commission would address issues concerning the clarification, modification, or abolishment of the MDS BTA requirement in an upcoming rulemaking.[489]

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[483] *See* Facilitating The Provision Of Spectrum-Based Services To Rural Areas And Promoting Opportunities For Rural Telephone Companies To Provide Spectrum-Based Services, WT Docket No. 02-381, *Notice of Inquiry*, 17 FCC Rcd 25,554 at ¶ 22 (2002).

[484] *Id.* at 50; *see also* paras. 168- 169.

[485] *See* Extension of the Five-Year Build-out Period for BTA Authorization Holders in the Multipoint Distribution Service, *Memorandum Opinion and Order*, 16 FCC Rcd 12593, 12594-12595 ¶ 5 (2001). The Commission did not alter the construction deadlines that already fell after August 16, 2003.

[486] *Id*. at 12593 ¶ 1.

[487] *Id*. at 12,596 ¶ 8.

[488] *Id*. at 12,596 ¶ 8.

[489] *Id*. at 12,597 ¶ 9.

200. In light of the breadth of the proposals set forth in this *NPRM & MO&O*, and our re-evaluation of performance standards for the 2500 -2690 MHz band, we believe that suspending the current August 16, 2003 construction deadline for BTA authorization holders is in the public interest. While we are normally reluctant to suspend a build-out requirement, a suspension of this construction deadline will allow the Commission to evaluate the performance requirements and service rules for this band. This approach is consistent with prior Commission actions suspending a deadline while relevant policy is subject to the pending rulemaking proceedings.[490] Accordingly, we will suspend the BTA construction deadline pending the release of a *Report and Order* in this proceeding. We seek comment, however, on how much additional time we should give MDS BTA Authorization holders. Should we toll the time from the release of the *NPRM* until the August 16, 2003 deadline, which is approximately five months and give them an additional five months from the release date of the *Report and Order* in this proceeding? Should we give them eight months from the release of the *Report and Order* in this proceeding? Should we give them an additional two years from the release date of the *Report and Order* in this proceeding?

201. *Extension/Suspension of current performance requirements for site-based licensees.* Moreover, we also believe that it is in the public interest to suspend the construction deadline for ITFS and MDS site-based licensees and permittees that have unexpired licenses or permits that have not expired as of the release date of the *NPRM & MO&O* and that have made a timely filed extension request. We seek comment, however, on whether we should review those timely filed extension requests to construct under our current rules and suspend the construction deadline only for those that comply with the current rules, or whether we should automatically suspend the construction deadline for all timely filed requests for extension of time to construct. If we should automatically grant such requests, how much time should licensees or permittees receive to construct? We seek comment on whether this suspension should also cover licensees and permittees whose requests for extension of time have been denied, but who have timely petitions for reconsideration or applications for review pending. We also request comment on the proper treatment of objections or other pleadings that have been filed against requests for extension of time. We emphasize that the suspension of this construction deadline for site-based licensees does not affect the requirement for such licensees to timely file a renewal application.[491] We stress that all site-based licensees are required to timely file renewal applications or face cancellation of their licenses regardless of the pendency of this proceeding.

202. In light of the changes we are proposing, we seek comment on whether we should continue our current policy with regard to extension requests to construct facilities. If we should continue our current policy, should we make any changes? If so, we seek comment on the specific changes that we should make.

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[490] *See, e.g.*, Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool Modification of FCC Rule Section 90.627(b) Governing Multiple Sites for Specialized Mobile Radio Service Systems In Rural Markets, *Order*, 8 FCC Rcd 3974 (1993); Requests by Interactive Video And Data Service Auction Winners to Waive the January 18, 1998, and February 28, 1998, Construction Deadlines, *Order*, 13 FCC Rcd 756 (WTB 1998); Requests by Interactive Video and Data Service Auction Winners to Waive the March 28, 1997 Construction Deadline, *Order*, 12 FCC Rcd 3,181, 3,184 (WTB 1997); Deferral of Rate of Return Represcription Filings Pursuant to Section 65.102(c) of the Rules, *Memorandum Opinion and Order*, 3 FCC Rcd 7,220, 7,222 (CCB 1988). *Cf. Channel 16 of Rhodel Island, Inc. v. FCC*, 440 F.2d 266, 275-76 (D.C. Cir. 1971).

[491] *See, e.g.* Daniel R. Goodman, Receiver; Dr. Robert Chan, *Memorandum Opinion and Order and Order on Reconsideration*, 13 FCC Rcd 21,944, 21972-973, 21977 ¶¶ 53, 62 (1998).

15. Annual Reports

203. Our existing rules require MDS operators to file annual reports even if they are in full compliance with all of our rules.[492] We propose to eliminate this requirement because these reports do not appear to serve any purpose.

G. Application Processing

204. Currently, our MDS and ITFS application processing is cumbersome, time-consuming, and resource intensive. As noted above, we propose to replace the requirement to separately license individual transmitters with a geographic area licensing scheme in which most operations would be authorized under the geographic area license. We believe this change will substantially reduce the burdens on licensees, expedite the initiation of service, and provide greater flexibility. Nonetheless, we note that there will continue to be limited instances in which transmitters will have to be licensed individually. We therefore believe it is appropriate to review and streamline our application procedures.

205. With respect to the processing of ITFS applications, our rules require the opening of a filing window before we will accept applications.[493] Then we must announce a one-week filing period for applications for major changes, high-power signal booster station, response station hub and R channels point-to-multipoint transmissions licenses. At the conclusion of the one-week filing period, we announce the tendering for filing of applications submitted during the filing window and provide a sixty-day filing window for applicants to amend their applications.[494] At the end of the sixty-day filing window, we announce the acceptance for filing of all applications submitted during the initial window, as amended by the applicants.[495] Opposing parties receive sixty days from the release of the public notice announcing the acceptance for filing of the applications to file a petition to deny against an application.[496] On the sixty-first day, we grant the unopposed applications unless we notified the applicant that we were not granting the application. We are concerned that this process may result in delays to the public and hinders the efficient processing of ITFS applications. We seek comment on whether this concern is valid. Additionally, if this concern is valid, we seek comment on measures we may implement to stream-line this process.

206. Although our MDS application processing procedures are different from the ITFS procedures, we seek comment on whether we should consolidate the MDS and ITFS application procedures. Generally, upon receipt of an MDS application, we give the application a file number.[497] After preliminary review, we place those applications that appeared complete on public notice as accepted

[492] 47 C.F.R. § 21.911.

[493] *See* 47 C.F.R. § 74.911(c)(1), (d).

[494] *See* 47 C.F.R. § 74.911(d) (amendments were permissible as long as they did not result in any increase in interference to any previously-proposed or authorized station, or to facilities proposed during the window, absent consent of the applicant for or licensee of the stations that would receive the additional interference).

[495] *See id*.

[496] *See id*.

[497] *See* 47 C.F.R. § 21.26.

for filing.[498] However, with regard to MDS two-way application filings, we currently use a rolling one-day filing window.[499] We announced the "tendering for filing" of applications submitted during the filing window.[500] After a sixty-day period, we released a second public notice announcing those applications that we accepted for filing.[501] Although the MDS application filing procedures appear quicker, we are concerned that these procedures can be stream-lined as well. Accordingly, we seek comment on whether we should stream-line the MDS application procedures. If so, we seek comment on methods to stream-line these procedures and where possible to consolidate the procedures.

207. Previously, applicants could file and view their applications on-line using the Broadband Licensing System (BLS).[502] The BLS contained the licensing data for MDS and ITFS.[503] The public could access the BLS via the Internet.[504] This on-line access enables users to search and display MDS and ITFS application and station information including Internet display of granted station authorizations.[505] Users could also view filed applications in the electronic format.[506]

208. On October 11, 2002, the Wireless Bureau suspended the electronic filing capabilities of the BLS in order to improve the integrity of data in the BLS, prepare for converting the ITFS and MDS services to the ULS, and facilitate future enhancements to electronic filing.[507] Although the BLS had some on-line capabilities, we believe that conversion of the data from BLS to ULS will improve the efficiency of filing applications, as well as searching for data on these services.

209. In this vein, we note that we require the majority of the wireless applicants to file their applications electronically using ULS. The ULS has eliminated the need for wireless carriers to file duplicative applications and has increased the accuracy and reliability of licensing information for

[498] *See id*. Neither the assignment of a file number nor the listing on a public notice as accepted for filing indicates that the application has been found acceptable for filing or precludes the subsequent return or dismissal of the application if it is found defective or not in substantial compliance with the Commission's rules. *Id*.

[499] *See* Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, *Report and Order*, MM Docket No. 97-217, 13 FCC Rcd 19112, 19150 (1998); 47 C.F.R. § 21.27(d).

[500] Commission Announces Initial Filing Window for Two-Way Multipoint Distribution Service and Instructional Television Fixed Service, *Public Notice,* 15 FCC Rcd 5,850 (MMB 2000).

[501] 47 C.F.R. § 21.27(d).

[502] *Pubic Notice*, Mass Media Bureau Implements , May 30, 2000 (*BLS Implementation PN*).

[503] *Id*.; *see also*, Wireless Telecommunications Bureau Suspends Electronic Filing for the Broadband Licensing System on October 11, 2002, *Public Notice*, 17 FCC Rcd 18,365 (2002) (*Electronic Filing Suspension PN*).

[504] *BLS Implementation PN*.

[505] *Id*.

[506] *Id*.

[507] *Electronic Filing Suspension PN*, 17 FCC Rcd at 18,365. We note that effective March 25, 2002, the Commission transferred the regulatory functions for the Services from the former Mass Media Bureau to the Wireless Telecommunications Bureau. Radio Services are Transferred from Mass Media Bureau to Wireless Telecommunications Bureau, *Public Notice*, 17 FCC Rcd 5077 (2002).

wireless services. Additionally, ULS has increased the speed and the efficiency of the application process because wireless licensees and applicants can file all licensing-related applications and other filings electronically. Since the implementation of ULS, the public may access all publicly available wireless licensing information on-line.[508] Because ULS is interactive, ULS prompts the applicant to input the required information for the type of action that the applicant seeks. As a result, applicants must submit all the appropriate information before they may file their applications electronically in ULS.[509] Notably, ULS will automatically "pre-fill" licensee information already in the system and will display only the portions of the form and schedules that require completion for the applicant's or licensee's indicated purpose.[510]

210. The Commission also created redundant systems and back up procedures to safeguard against loss of data or system access should a system failure occur.[511] We believe that transitioning MDS and ITFS to ULS will have the same benefits for MDS and ITFS carriers, the public and the Commission. Accordingly, we seek comment on the changes needed to transition MDS and ITFS to ULS.

211. In light of the interactively nature of ULS to assist an applicant through the application process, we propose to streamline the licensing process.[512] Generally, upon filing of an application in ULS, we place the application on public notice as accepted for filing.[513] The extra step of allowing applicants to amend their applications to make corrections is not necessary with ULS. We seek comment on this proposal. In addition to the concerns noted above with regard to streamlining the ITFS and MDS application processes, we tentatively conclude that the interactive nature of ULS will enhance the on-line capabilities of MDS and ITFS users. Accordingly, we propose to integrate the Services into ULS. We seek comment on this proposal.

1. Returns and Dismissals of Incomplete or Defective Applications

212. As noted above,[514] in some instances ITFS and MDS applicants submitted applications that were incomplete or required the submission of additional information before they could be placed on public notice as accepted for filing. We propose to extend our uniform rule for dismissal or return of defective applications in the Wireless Services to ITFS and MDS applications.

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[508] *ULS R&O*, 13 FCC Rcd 21027, 21031 ¶ 4.

[509] Phase I Mandatory Electronic Filing Deadline Extended for PCIA and ITA, *Public Notice,* 16 FCC Rcd 13,681 (2001) (the Commission extended the deadline for mandatory electronic filing to July 25, 2001).

[510] On-line help, including form instructions, is provided for electronic filers. Additionally, the FCC Technical Support Hotline is available Monday through Friday, 8 a.m. to 6 p.m. *All calls to the FCC Technical Support Hotline are recorded*. Wireless Telecommunications Bureau Grants Dismissal Requests of Eligible Auction No. 35 Winners and Dismisses Applications for Five C and F Block Broadband Personal Communications Services (PCS) Licenses, P*ublic Notice*, (DA 02-3585, rel. Dec. 24, 2002), Attachment B.

[511] *ULS R&O*, 13 FCC Rcd 21027, 21031 ¶ 5.

[512] *See* paras. 208-209 *supra*.

[513] *See* 47 C.F.R. § 1.933(1).

[514] *See* paras. 204-205 *supra*.

213. In the *ULS Report and Order*, the Commission adopted a uniform application dismissal and return rule in all the Wireless Services.[515] Pursuant to the uniform rule, the Commission indicated that it has the discretion to return applications for correction on minor filing errors, but it also has the authority to dismiss any incomplete or defective application without prejudice.[516] However, the Commission explained that it would automatically dismiss any application that is defective because the applicant failed to sign the application, failed to pay the required filing fee, or filed outside of the applicable filing window.[517] The Commission concluded that, in contrast to minor filing errors, such defects were "fatal to the consideration of the application."[518] Accordingly, the Commission found that, regardless of the manner in which applicants submitted their applications, ULS would automatically dismiss "applications that were unsigned, untimely, or not fee-compliant."[519]

214. The Wireless Bureau announced specific procedures for complying with the Commission's uniform policy.[520] The Wireless Bureau explained that, "[g]enerally, timely filed renewal applications and construction notifications that are otherwise defective will be returned to the applicants for correction, rather than dismissed by the Bureau."[521] However, the Bureau clarified "that renewal applications and construction notifications that fail to comply with the applicable fee and signature requirements will be dismissed by the Bureau as defective, rather than returned to the applicants for correction, even if timely filed."[522] We propose to adopt this application dismissal and return policy for MDS and ITFS to ensure efficient processing and equal treatment of all applications. We invite comment on this proposal.

2. ULS Forms

215. The Commission consolidated the ULS application forms for wireless services to replace approximately forty-one application forms.[523] The consolidation streamlined the processing of applications and reduced the filing burden for wireless applicants and licensees.[524] We use four forms in ULS – Form 601 (Long-Form or FCC Application for Wireless Telecommunications Bureau Radio

[515] *See ULS R&O*, 13 FCC Rcd 21,027: *See also* 47 C.F.R. § 1.934.

[516] *ULS R&*O, 13 FCC Rcd at 21068 ¶ 90.

[517] *ULS R&*O, 13 FCC Rcd at 21068 ¶ 90.

[518] *Id*.

[519] *See, e.g*., id.

[520] *See* Wireless Telecommunications Bureau Clarifies Unified Policy for Dismissing and Returning Applications, *Public Notice*, 17 FCC Rcd 30 (WTB 2001) (*Unified Dismissal and Return PN*); Wireless Telecommunications Bureau Revises and Begins Phased Implementation of its Unified Policy for Reviewing License Applications and Pleadings, *Public Notice*, 14 FCC Rcd 11182, 11185 (WTB 1999); Wireless Telecommunications Bureau Announces Unified Policy for Dismissing and Returning Applications and Dismissing Pleadings Associated with Applications, *Public Notice*, 14 FCC Rcd 5499 (WTB 1999).

[521] *Unified Dismissal and Return PN*, 17 FCC Rcd at 30.

[522] *Id*. at 32.

[523] *ULS R&O*, 13 FCC Rcd 21,027, 21,033-21,034 ¶ 10.

[524] *Id*.

Service Authorization), Form 602 (FCC Ownership Disclosure Information for the Wireless Telecommunications Bureau), Form 603 (FCC Wireless Telecommunications Bureau Application for Assignment of Authorization or Transfer of Control) and Form 605 (Quick-Form Applications for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services.[525] Currently, our rules require MDS and ITFS applicants to use eleven forms to request licensing actions.[526] We tentatively conclude that we will use the ULS forms to license the Services. Accordingly, we seek comment on the changes to the forms that will be needed to accommodate these Services. In the paragraphs that follow, we delineate the purposes of the specific ULS forms and the forms that they will replace.

216. *FCC Form 601*. Under our proposal, this form will replace FCC Forms 304, 304A, 330, 330A, 330R, 331, 405, 701 and most informal application filings. The FCC Form 601 and associated schedules will be used to apply for initial authorizations, modifications (major and minor) to existing authorizations, amendments to pending applications, renewals of station authorizations, developmental authorizations, special temporary authorities (STAs), certifications of construction, requests for extension of time, cancellations, and administrative updates. The required schedules are:

- New/Modification/Amendment (Regular Authorizations, Developmental Authority and Special Temporary Authority) – FCC Form 601 Main Form with required technical schedule.
- Renewals/Cancellation/Administrative Updates – FCC Form 601 Main Form and Schedule A (if requesting multiple call signs).[527]
- Certifications of Construction – FCC Form 601 Main Form and Schedule K.
- Extension of Time to Construct – FCC Form 601 and Schedule L.

217. *FCC Form 602.* This form will replace the FCC Form 430 for the submission of initial and updated ownership information for those wireless radio services that require the submission of such information.[528]

218. *FCC Form 603.* This form will replace FCC Forms 305, 306 and 330. Applicants use the FCC Form 603 and associated schedules to apply for consent to assignment of existing authorizations (including channel swaps), to apply for Commission consent to the transfer of control of entities holding authorizations, to notify the Commission of the consummation of assignments or transfers, and to request extensions of time for consummation of assignments or transfers. Additionally, applicants use the form to apply for partial assignments of authorization, including partitioning and disaggregation. The required schedules are:

- Assignment/Transfer of Control – FCC Form 603 Main Form and Schedule A for auctionable services.[529]

[525] *Id*.

[526] The MDS and ITFS application forms are FCC Forms 304, 304A, 305, 306, 330, 330A, 330R, 331, 405, 430, and 701.

[527] *See* 47 C.F.R. § 1.949 for the rules governing renewals.

[528] *See supra* n.415; 47 C.F.R. § 0.408.

[529] *See* 47 C.F.R. § 1.948.

- Partitioning & Disaggregation – FCC Form 603 Main Form and Schedule B or Schedule D as required.
- Consummation Notifications – FCC Form 603 and Schedule D.
- Extension of Time for Consummation – FCC Form 603 and Schedule E.

219. We believe that eliminating the current MDS and ITFS forms and implementing the ULS forms for MDS and ITFS will streamline the processing of applications and reduce the filing burden for MDS and ITFS applicants and licensees. We note that by using the ULS Forms, we will eliminate a number of obsolete MDS and ITFS forms from our rules.[530] Accordingly, we propose to use the ULS forms for MDS and ITFS, thereby eliminating the current MDS and ITFS forms. We seek comment on this proposal.

3. Transition Periods

220. In light of the significant changes proposed to the ITFS and MDS forms and rules, we believe applicants and licensees should receive a transition period to familiarize themselves with ULS and begin using ULS forms. Accordingly, we propose to allow continued use of the current ITFS and MDS forms for a transition period of six months after the effective date of the release of a *Report and Order* in this proceeding. This period will provide ITFS and MDS applicants and licensees with sufficient time to familiarize themselves with ULS and to plan an orderly transition from using existing forms to using the ULS forms. At the conclusion of this period, we tentatively conclude that the we will accept ULS forms only for these Services. This period is consistent with the transition period the Commission used with the initial implementation of ULS.[531]

221. In the *ULS R&O*, the Commission provided a transition period for applicants and licensees to use ULS voluntarily before implementing mandatory electronic filing using the ULS forms.[532] Generally, the Commission determined that permitting a six-month transition period after application processing in ULS begins for a service before requiring mandatory electronic filing was appropriate.[533] We believe the six-month transition period has worked reasonably well for the other services that have transitioned to ULS.[534] Accordingly, we tentatively conclude that we will permit a six-month transition period after application processing in ULS begins before requiring mandatory electronic filing by MDS and ITFS applicants and licensees in ULS is appropriate. We invite comment on this tentative conclusion. As in the past, the Wireless Bureau will release a public notice announcing the relevant commencement date for the processing of the Services applications in ULS.[535]

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[530] *See e.g.* 47 C.F.R §§ 73.3500, 73.3536 (elimination of all references to FCC Form 330-L, "Application for Instructional Television Fixed Station License); 47 C.F.R. §§ 21.11(b); 73.3500; 73.3533(b) (elimination of all references to FCC Form 307). In addition, we propose to delete references to obsolete MDS forms mentioned in Part 74. *See* 47 C.F.R. § 74.991.

[531] *ULS R&O*, 13 FCC Rcd at 21027, 21038-21039 ¶ 16.

[532] *Id.* at 21042-21043 ¶ 24.

[533] *Id.*

[534] *ULS R&O,* 13 FCC Rcd 21027 (1998) at 21042-3, ¶ 22-4.

[535] *See, e.g., Public Notice:* Wireless Telecommunications Bureau to Begin Use of Universal Licensing System (ULS) for Microwave Services (DA 99-154, rel. Aug. 30, 1999).

222. We anticipate that ITFS and MDS operators will find the application and renewal process with the ULS to be easier and less error-prone than with the existing system. Before implementing the electronic ULS, the Commission established a task force to receive public input on the design of the system and to coordinate efforts. Consistent with the WTB's approach in implementing other services into ULS, Commission staff will conduct interactive demonstrations for licensees and their representatives on the proper use of the system for filing license applications and conducting database research. Such demonstrations will be announced by public notice and will include topics such as: (1) finding information in ULS for license and application searches; (2) filing and researching license transfers and assignments; and (3) general application filing procedures.

223. We also note that the WTB has ongoing initiatives designed to familiarize Commission licensees with the ULS and give notice of upcoming changes thereto. For instance, the WTB periodically updates its "ULS Newsletter" on the WTB web site to provide the public with current information on ULS and related topics of interest.[536] The WTB maintains an electronic mail list of interested parties, which are provided with updated ULS information free of charge. The WTB also maintains a toll-free phone line[537] to assist with licensing questions during the ULS transition and has established a technical support hotline (and e-mail address)[538] to assist the public with computer-related issues, including set-up and configuration.

224. To ensure that existing and potential licensees will be comfortable with the integration of MDS and ITFS into the ULS, we intend to pursue a variety of outreach efforts similar to those we have followed in the past when bringing new classes of licenses into the ULS. The WTB has operated booths at many industry trade shows, providing hands-on training regarding use of the Commission's ULS and auction bidding software over the Internet. The Commission's outreach program also includes a web page and telephone hot lines. Members of the Commission and its staff have spoken at numerous industry, trade association, public interest organization, and telecommunications user group conferences on opportunities in wireless services licensed by the Commission, and will continue to do so.[539] We also solicit comment on additional means by which we can afford MDS and ITFS licensees opportunities to become educated about and familiar with ULS and the new application procedures we adopt in this proceeding.

225. We note that the MDS/ITFS community requests clarification that it may use the FCC Form 331 for all modification applications for existing stations, whether main stations, boosters, or response station hubs, and that it should use the FCC Forms 304 and 330 only for applications for new stations.[540] Although the MDS community seeks a clarification that it may use FCC Form 331 to modify existing stations, whether main stations, booster stations or response stations, we believe that MDS

[536] *See Section 257 Report to Congress: Identifying and Eliminating Market Entry Barriers For Entrepreneurs and Other Small Businesses*, 15 FCC Rcd. 15,376, 15,408, ¶ 77 (2000) (*"Section 257 Report"*). A list of FCC Public Notices concerning ULS is available on the WTB ULS Homepage at www.fcc.gov/wtb/uls.

[537] The toll-free number regarding ULS questions is 1-888-CALL-FCC, option 2.

[538] The Technical Support telephone no. is 202-414-1250 and the e-mail address for ULS technical questions is ulstech@fcc.gov.

[539] *See Section 257 Report* at 15,407-15,408, ¶ 76.

[540] Memorandum to WCA Government Relations Committee from Paul J. Sinderbrand, Esq., Petition for Rulemaking - Amendment of Parts 21 and 74, page 3, August 1, 2001.

applicants should use FCC Form 601, upon adoption of final rules, to ensure a smooth transition to ULS. We seek comment on this concern.

4. Suspension of Acceptance and Processing of Applications

226. In light of our actions described above, and effective as of the date of the release of this *NPRM & MO&O*, we will suspend acceptance of applications for ITFS channels for new licenses, amendments or modifications for any kind of station temporarily, except as provided below. The suspension is effective until further notice and applies to applications received on or after the date of release of this *NPRM & MO&O*. Any such applications received after the deadline will be returned as unacceptable for filing. We take this action to permit the orderly and effective resolution of issues in this proceeding. Absent this action, applications for new licenses, amendments, and modifications might limit the effectiveness of the decisions made and the standards developed in this proceeding. We note this action is consistent with the approach we have taken in other existing services where we have proposed to adopt geographic area licensing.[541] We therefore find that this temporary measure is in the public interest.

227. Notwithstanding this temporary suspension, we will continue to process applications for ITFS channels that involve minor modifications, assignment of license or transfer of control.[542] This exception should permit modifications that can improve the efficiency of incumbent operations on these channels without affecting the effective and orderly resolution of the issues in this proceeding. Again, we will continue to accept applications for minor modifications, license assignments and transfers of control under existing procedures.

228. With respect to pending ITFS applications that were filed prior to the release date of this *Notice of Proposed Rulemaking*, and which are pending, we will process such applications provided that they are not mutually exclusive with other applications as of the deadline stated above. We believe that this approach gives the appropriate consideration to those applicants who filed applications prior to our proposed changes and whose applications are not subject to competing applications. We note that we used this approach in other services where we have proposed a transition to geographic area licensing.[543] If applicants have filed settlement agreements prior to the release date of the *Notice of Proposed Rulemaking*, and such settlement agreements comply with our rules, we will act on the settlement agreements. If we approve such a settlement agreement, we will allow the processing and grant of the remaining non-mutually exclusive applications. We will not accept settlement agreements relating to mutually exclusive ITFS applications that are filed after the release date of this *Notice of Proposed Rulemaking*. With respect to applications for ITFS stations filed prior to the adoption of this *Notice of*

[541] *See e.g.,* Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, WT Docket No. 96-18, *Notice of Proposed Rule Making*, WT Docket No. 96-18, PP Docket No. 93-253, 11 FCC Rcd 3108 (1996). *See also,* Amendment of the Rules Regarding Multiple Address Systems, WT Docket No. 97-81, *Notice of Proposed Rule Making*, 12 FCC Rcd 7973 (1997).

[542] The Commission reserves the right to classify amendments as major or minor on a case-by-case basis. Unless the Commission determines otherwise in a specific case, a minor amendment is an amendment that does not fall within the Commission's definition of a major amendment, which is codified at 47 C.F.R. §21.23(c). *See also* n.371.

[543] *See, e.g.,* Amendment of the Commission's Rules Regarding Maritime Communications, PR Docket No. 92-257, *Second Report and Order and Second Further Notice of Proposed Rule Making*, 12 FCC Rcd 16949, 17015-17016 (1997).

Proposed Rulemaking that do not meet the above criteria, we tentatively conclude that we will dismiss such applications without prejudice upon adoption of a *Report and Order* in this proceeding. Any commenters proposing that we retain such applications should address how such applications should be processed, particularly in the event of any auction for spectrum covered by the application.[544] This action would be consistent with our treatment of pending applications in other services that we have converted to geographic area licensing.[545] While we are proposing to convert ITFS to geographic area licensing, the pending applications were filed in response to a site-based licensing scheme. We seek comment on this tentative conclusion.

229. These decisions are procedural in nature and therefore not subject to the notice and comment and effective date requirements of the Administrative Procedure Act.[546] Moreover, there is good cause for proceeding in this manner: to do otherwise would be impractical and contrary to the public interest because compliance would undercut the purpose of these interim measures.[547] It is well-established that the Commission may initiate a freeze without prior notice and hearing when the purpose is the "creation of conditions under which formal rulemaking proceedings can be held in an effective, efficient, and meaningful manner."[548] In this particular instance, we are undertaking a comprehensive review of the services to provide licensees maximum operational flexibility with minimal regulatory restrictions. Because we seek comment on virtually every area related to the services, we believe that it is appropriate to suspend the acceptance and processing of applications.

H. Competitive Bidding Procedures

230. *Competitive Bidding Authority.* As discussed earlier in this *NPRM & MO&O*, the Commission determined in prior proceedings that the statutory mandate to use competitive bidding to resolve mutually exclusive applications for licenses applies to MDS[549] and ITFS[550] applications under

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[544] *See, infra*, para. 231, regarding participation in auctions for licenses to use ITFS spectrum in currently unassigned areas.

[545] *See, e.g.,* Amendment of the Commission's Rules Regarding Maritime Communications, PR Docket No. 92-257, *Second Memorandum Opinion and Order and Fifth Report and Order*, 17 FCC Rcd 22585, 6720 ¶ 83 (2002).

[546] *See* 5 U.S.C. §§ 553(b)(A), (d); *Kessler v. FCC*, 326 F.2d 673 (D.C. Cir 1963).

[547] *See* 5 U.S.C. §§ 553(b)(B), (d)(3).

[548] See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 Bands, Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz Bands, *Memorandum Opinion and Order*, ET Docket No. 95-183, PP Docket No. 93-253, 12 FCC Rcd 2910, 2915 ¶ 10 *citing Kessler v. FCC*, 326 F. 2d 673, 679-81 (D.C. Cir. 1963).

[549] *See supra,* para. 22.

[550] *See* Implementation of Section 309(j) of the Communications Act – Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service Licenses, Reexamination of the Policy Statement on Comparative Broadcast Hearings, Proposals to Reform the Commission's Comparative Hearing Process to Expedite the Resolution of Cases, MM Docket No. 97-234, GC Docket No. 92-52, GEN Docket No. 90-264, *First Report and Order*, 13 FCC Rcd 15,920, 15,998-16,004 (1998) ("*Competitive Bidding for ITFS Licenses First Report and Order*"), *recon. granted in part*, *Memorandum Opinion and Order,* 14 FCC Rcd 8,724 (1999) (in relevant part, granting ITFS applicants in future auctions a post-short-form settlement period and clarifying that the new entrant bidding credit will not be applied in any ITFS auction), *and rule modified in part*, 14 FCC Rcd (continued….)

current service rules. As the Commission recognized, Congress has mandated expressly that "if 'mutually exclusive applications are accepted for *any* initial license or construction permit, then, *except as provided in paragraph (2)* [of 47 U.S.C. §309(j)], the Commission *shall* grant the license or permit to a qualified applicant through a system of competitive bidding[.]'"[551] The Commission originally concluded that neither MDS nor ITFS come within any of paragraph 2's exceptions for "public safety radio services;" for initial digital television licenses given to existing broadcast licenses to replace analog televisions licenses; and for "noncommercial educational broadcast" and "public broadcast" stations, as those terms are defined in 47 U.S.C. §397(6).[552] The changes proposed in this *NPRM & MO&O* will not bring MDS or ITFS licenses within any of these exceptions, which Congress has not changed or expanded. Accordingly, we must use competitive bidding to resolve mutually exclusive applications for licenses in these bands.

231. *Participation in Auctions for Licenses to Use ITFS Spectrum in Currently Unassigned Areas.* What parties may participate in an auction for licenses to use ITFS spectrum in currently unassigned areas is a distinct question from what parties should be eligible to hold ITFS spectrum licenses.[553] Citing prior Commission proceedings, the Coalition proposes that participation in such an auction should be limited solely to parties with pending applications for licenses associated with unassigned ITFS spectrum.[554] Previously, the Commission observed that "it would not serve the public interest to accept additional competing ITFS applications despite our authority to do so under Section 309(j)(1)," and therefore the only "eligible bidders in any auction of the pending ITFS applications" ought to be "those with applications already on file."[555] However, this prior observation applied solely with respect to "any auction of the *pending ITFS applications*[.]" Pursuant to this *NPRM & MO&O*, and consistent with the Coalition proposal, we now are considering an auction of new licenses for using ITFS spectrum in geographic areas that will encompass currently unassigned areas. As noted previously, geographic area licensing will give licensees greater operational flexibility to modify, move, and add to their facilities, which may improve spectrum utilization.[556] In addition, this greater operational flexibility may result in new and competing proposals for utilizing the public spectrum resource from parties not previously involved in pending site-based licensing applications. Applicants intending very different uses of these more flexible licenses can express the respective values a particular license has for their intended use in easy to compare competitive bids. This enables the Commission rapidly to assign licenses to parties that will put them to their highest value use. However, an auction must be open to all parties qualified to use the license in order to assign the license to the party that most highly values it.[557] We seek comment on whether the Commission should adopt the Coalition's plan or open participation to any

(Continued from previous page)
12,541 (1999) (modifying rules regarding attribution of ownership for determining eligibility for new entrant bidding credit).

[551] *Competitive Bidding for ITFS Licenses First Report and Order*, 14 FCC Rcd at 15,999 n.245 (quoting and adding emphasis to 47 U.S.C. § 309(j)(1)).

[552] *See* 47 U.S.C. § 309(j)(2).

[553] *See supra,* paras. 107-117.

[554] White Paper at 41 and n.111 (quoting 13 FCC Rcd at 16,002).

[555] *Id.*

[556] *See supra*, para. 62.

[557] *See generally* Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Second Report And Order*, 9 FCC Rcd 2348, 2360-2361, ¶¶ 70-71 (1994).

party eligible to hold a geographic license. We note that, in either case, if the Commission determines that only educational institutions may hold ITFS licenses, then only those institutions may participate in any auction of ITFS licenses. We further seek comment on any special challenges associated with governmental educational institutions or non-governmental non-profit educational institutions participating in auctions. Commenters proposing that auction participation be restricted to fewer than all parties eligible to be licensees should address how any such restrictions are consistent with the statutory policy objectives of the Commission's competitive bidding authority.[558]

232. *Potential Auctions.* As discussed further below, we seek comment on three alternative potential auctions: an auction of new licenses to use ITFS spectrum in currently unassigned areas; a two-sided auction to restructure the ITFS spectrum with new licenses; and a two-sided auction to restructure the MDS and ITFS spectrum with new licenses. The term "two-sided auction" generally refers to auctions with multiple sellers and buyers. It is used here to refer to a Commission auction of licenses that makes available rights to previously unassigned spectrum, held by the Commission, and rights to spectrum previously licensed. In such a "two-sided auction," incumbent licensees may bid on licenses that include licenses associated with spectrum previously licensed to them. As discussed further below, a restructuring auction would attempt to further the public interest in efficient and intensive use of the spectrum by bringing together all parties that may have an interest in rights in the ITFS and MDS spectrum, including incumbent licensees and prospective new licensees. Each of the potential auctions would include licenses to use ITFS spectrum in currently unassigned areas and, accordingly, procedures proposed for the auction of such licenses will apply to any of the three potential auctions, with modifications noted below for two-sided auctions in the latter two cases.

I. An Auction of Currently Unassigned ITFS Spectrum

233. *Auction Procedures*. We request comment on a number of issues relating to competitive bidding procedures that could be used to assign licenses by auction for ITFS spectrum in areas not covered by any incumbent licenses. If we decide on any auction approach, we propose to conduct any auction of licenses to use spectrum in the 2500-2690 MHz band in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission's rules, and substantially consistent with the bidding procedures that have been employed in previous auctions.[559] Specifically, we propose to employ the Part 1 rules governing, among other things, competitive bidding design, designated entities, application and payment procedures, collusion issues, and unjust enrichment.[560] Under this proposal, such rules would be subject to any modifications that the Commission may adopt in our Part 1 proceeding.[561] In addition, consistent with current practice, matters such as the appropriate competitive

[558] *See* 47 U.S.C. § 309(j)(3).

[559] *See, e.g.,* Amendment of Part 1 of the Commission's Rules—Competitive Bidding Procedures, WT Docket No. 97-82, *Order, Memorandum Opinion and Order and Notice of Proposed Rule Making,* 12 FCC Rcd 5686 (1997); *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374 (1997) (*Part 1 Third Report and Order)*; *Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15293 (2000) (*recon. pending*) (*Part 1 Recon Order/ Fifth Report and Order* and *Fourth Further Notice of Proposed Rule Making*); *Seventh Report and Order*, 16 FCC Rcd 17546 (2001); *Eighth Report and Order,* 17 FCC Rcd 2962 (2002).

[560] *See* 47 C.F.R. § 1.2101 *et seq.*

[561] *See Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15293 (2000); *see also Part 1 Recon Order/Fifth Report and Order*, 15 FCC Rcd 15293 (*recon. pending*).

bidding design for the auction of ITFS licenses, as well as minimum opening bids and reserve prices, would be determined by the Wireless Telecommunications Bureau pursuant to its delegated authority.[562] We seek comment on whether any of our Part 1 rules or other auction procedures would be inappropriate or should be modified for an auction of ITFS licenses.

234. *Designated Entities.* In authorizing the Commission to use competitive bidding, Congress mandated that the Commission "ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services."[563] In addition, section 309(j)(3)(B) of the Act provides that in establishing eligibility criteria and bidding methodologies, the Commission shall promote "economic opportunity and competition . . . by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women."[564]

235. The Commission's existing designated entity provisions apply based on an entity's qualification as a small business.[565] We note that minority- and women-owned businesses and rural telephone companies that qualify as small businesses may take advantage of the special provisions we have adopted for small businesses.[566] We seek comment on whether our small business provisions are sufficient to promote participation by business owned by minorities and women, as well as rural telephone companies.[567] To the extent that commenters propose additional provisions to ensure participation by minority- or women-owned businesses, or rural telephone companies, they should address how such provisions should be crafted to meet the relevant constitutional standards.

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[562] *See* Amendment of Part 1 of the Commission's Rules - Competitive Bidding Procedures*, Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374, 448-49, 454-55, ¶¶ 125, 139 (directing the Bureau to seek comment on specific mechanisms relating to auction conduct pursuant to the Balanced Budget Act of 1997) (*Part 1 Third Report and Order*).

[563] *See* 47 U.S.C. § 309(j)(4)(D).

[564] *See* 47 U.S.C. § 309(j)(3)(B).

[565] *See* 47 C.F.R. § 1.2110(a). Although the Commission previously extended designated entity preferences to minority- and women-owned businesses, as well as to small businesses, following the Supreme Court's rulings in *Adarand Constructors, Inc. v. Pena*, 515 U.S. 200 (1995), and *United States v. Virginia, et al*., 518 U.S. 515 (1996), the Commission concluded that it would not be appropriate to adopt special provisions for minority-owned and women-owned businesses pending the development of a more complete record on the propriety of race- and gender-based provisions for future auctions. *See Part 1 Fifth Report and Order*, 15 FCC Rcd at 15318-20, ¶¶ 45-50 (discussing constitutional standards and governmental interests that would justify the use of race- or gender-based preferences).

[566] *See Part 1 Fifth Report and Order*, 15 FCC Rcd at 15319, ¶ 48; *see also* FCC Report to Congress on Spectrum Auctions, WT Docket No. 97-150, *Report*, FCC 97-353 at 29 (rel. Oct. 9, 1997) (finding that special provisions for small businesses also increase opportunities for minority- and women-owned businesses).

[567] We recently issued a Notice of Inquiry seeking information about the effectiveness of our provisions to promote participation by rural telephone companies in our competitive bidding proceedings. *See* Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, WT Docket No. 02-381, *Notice of Inquiry*, FCC 02-325 (rel. Dec. 20, 2002).

236. We seek comment on the appropriate definition(s) of small business that should be used to determine eligibility for bidding credits in auctions involving ITFS spectrum. In the *Competitive Bidding Second Memorandum Opinion and Order*, the Commission stated that it would define eligibility requirements for small businesses on a service-specific basis, taking into account the capital requirements and other characteristics of each particular service in establishing the appropriate threshold.[568] The *Part 1 Third Report and Order*, while it standardizes many auction rules, provides that the Commission will continue a service-by-service approach to defining small businesses.[569] Generally, when establishing service-specific small business size standards, we look to the capital required to provide likely service using the spectrum. We do not know the precise type of service that new licensees may attempt to provide in this band. The Coalition has suggested that the ITFS and MDS bands may be used to provide ubiquitous broadband services using next generation low power, cellular systems on fixed, portable and/or mobile bases.[570] We invite comment on whether likely services in this band will have capital requirements similar to current MDS services; or similar to mobile services, such as Personal Communications Services; or similar to fixed services, such as services in the 24 GHz and 39 GHz bands.

237. Further, we invite comment on whether distinctive characteristics of licensees in the ITFS band require distinct rules for assessing the relative size of potential participants in an ITFS auction. In this regard, current ITFS eligibility rules would limit participation in an auction of ITFS licenses for which there are mutually exclusive applications to accredited educational institutions, governmental organizations engaged in the formal education of enrolled students, and nonprofit educational organizations providing educational and instructional television materials to such accredited institutions or governmental organizations.[571] How do our designated entity provisions comport with the unique challenges and status of educational institutions? Should we establish special provisions for non-profit educational institutions that may want to have access to ITFS spectrum but do not have the financial capability to compete in an auction for spectrum licenses? Commenters that propose special provisions for non-profit educational institutions should address the statutory basis for such proposals. Our standard schedule of small business bidding credits provides for bidding credits based on a calculation of bidders' average annual gross revenues for the three years preceding the auction.[572] We seek comment on whether the non-commercial character of current ITFS licensees requires any special procedures for determining the average annual gross revenues of such entities. For example, are our standard gross revenue attribution rules an appropriate method of evaluating the relative resources of universities and government entities? We also invite comment on whether some other criterion besides average annual gross revenues should be used for identifying small entities among eligible ITFS applicants.

238. Similarly, if current or revised licensee eligibility rules significantly limit parties eligible to participate in an ITFS auction, would distinguishing among eligible entities to grant bidding credits to

[568] Implementation of Section 309(j) of the Communications Act—Competitive Bidding, PP Docket No. 93-253, *Second Memorandum Opinion and Order*, 9 FCC Rcd 7245, 7269 ¶ 145 (1994) (*Competitive Bidding Second Memorandum Opinion and Order*); 47 C.F.R. § 1.2110(c)(1).

[569] *Part 1 Third Report and Order*, 13 FCC Rcd at 388 ¶ 18; 47 C.F.R. § 1.2110 (c)(1).

[570] *See* White Paper at 11.

[571] *See* 47 C.F.R. § 74.932, 990-992. Wireless cable entities may be eligible to obtain licenses for ITFS frequencies if there are no mutually exclusive ITFS applications. 47 C.F.R. § 74.990(e).

[572] *See* 47 C.F.R. § 1.2110(b).

small entities serve the statutory purpose of bidding credits?[573] We tentatively conclude that if the eligibility of parties to hold ITFS licensees is determined by their educational purpose, providing bidding credits based on the relative size of participants may not serve statutory purposes. We seek comment on this tentative conclusion.

239. In the event that participation in an ITFS auction is not significantly limited by eligibility restrictions, should our standard schedule of bidding credits should be applied to this service? In the *Part 1 Third Report and Order*, we adopted a standard schedule of bidding credits for certain small business definitions, the levels of which were developed based on our auction experience.[574] The standard schedule appears at Section 1.2110(f)(2) of the Commission's rules.[575] Are these levels of bidding credits appropriate for ITFS? Will they provide adequate opportunities for small businesses of varying sizes and for educational institutions, especially governmental and non-profit institutions, to participate in spectrum auctions that are open to a wide variety of participants.[576] For this proceeding, we propose to apply this standard schedule and define an entity with average annual gross revenues not exceeding $40 million for the preceding three years as a "small business;" an entity with average gross revenues not exceeding $15 million for the same period as a "very small business;" and an entity with average gross revenues not exceeding $3 million for the same period as an "entrepreneur."[577] We propose to provide qualifying "small businesses" with a bidding credit of 15%, qualifying "very small businesses" with a bidding credit of 25%; and qualifying "entrepreneurs" with a bidding credit of 35%, consistent with Section 1.2110(f)(2).[578] We seek comment on this proposal.

240. Given the close relationship between MDS and ITFS, we invite comment on the effect of having three small business sizes, and bidding credits, in ITFS while having only one small business size (average annual gross revenues for the preceding three years not exceeding $40 million) and one credit (15%) in MDS.[579] Commenters proposing alternative business size standards should give careful consideration to the likely capital requirements for developing services in this spectrum. In this regard, we note that new ITFS licensees may be presented with issues and costs involved in transitioning incumbents and developing markets, technologies, and services. Commenters also should consider whether the band plan and characteristics of the ITFS band suggest adoption of other small business size definitions and/or bidding credits in this instance.

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[573] *Cf.* Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licenses, *Sixth Report and Order and Order on Reconsideration*, WT Docket No. 97-82, FCC 00-313, 15 FCC Rcd 16266, 16288, ¶ 45 (2000).

[574] *See Part 1 Third Report and* Order, 13 FCC Rcd at 403-04, ¶ 47.

[575] *See* 47 C.F.R. § 1.2110(f)(2).

[576] *See Part 1 Third Report and* Order, 13 FCC Rcd at 404, ¶ 47.

[577] *See* 47 C.F.R. § 1.2110(f)(2). We note that we will coordinate the small business size standards for ITFS in this proceeding with the U.S. Small Business Administration.

[578] 47 C.F.R. § 1.2110(f)(2)(i)-(iii).

[579] *See* 47 C.F.R. § 21.961(b).

J. Two-Sided Auctions to Restructure Spectrum

241. The Commission could conduct a two-sided auction to restructure spectrum to bring together all parties interested in rights to ITFS spectrum, and MDS spectrum as well, including incumbent licensees and prospective new licensees.[580] Making available in a single auction new licenses to use ITFS spectrum in currently unassigned areas along with spectrum made available by incumbent ITFS licensees, and potentially incumbent MDS licensees as well, would enable interested parties to restructure the band rapidly by helping them learn the cost of combining and obtaining encumbered and unencumbered spectrum for new uses, without engaging in costly and time consuming bilateral and multi-lateral negotiations.[581] Thus, a restructuring auction could facilitate the voluntary clearing of spectrum by incumbent licensees and allow the Commission to issue new licenses, that more efficiently aggregate spectrum rights and/or spectrum blocks with rights and blocks associated with existing licenses.

242. Conducting a two-sided restructuring auction may raise novel issues related to competitive bidding. To the extent a restructuring auction offers new initial licenses to all interested parties, we conclude that we can conduct such an auction consistent with our mandate and authority under Section 309(j).[582] To the extent that our auction process provides private parties with a secondary market for existing licenses that enhances the final license assignment in a simultaneous auction of new licenses, we believe that we can design such an auction consistent with our mandate and authority under Sections

[580] As noted previously, *see, supra*, para. 232, this potential auction would include licenses to use ITFS spectrum in currently unassigned areas and procedures proposed with respect to the auction of such licenses would be applicable to this auction as well. A recent working paper published by the Commission discusses how such two-sided auctions can be used to transition rapidly from existing spectrum band plans and policies to new plans and more flexible policies. *See, generally,* Evan Kwerel and John Williams, 2002, "A Proposal for a Rapid Transition to Market Allocation of Spectrum" Office of Plans and Policy Working Paper No. 38, Federal Communications Commission. In the case of ITFS and MDS spectrum, such an auction should be open to all parties that may be eligible to hold a license to use the spectrum in order to best determine the market price. Otherwise, the auction price may not reflect significant demand for licenses.

[581] For example, an entity planning to use ITFS spectrum to provide mobile services in a geographic area pursuant to newly proposed service rules currently has to obtain the license to use any spectrum previously not authorized for use in that area and has to negotiate with each incumbent licensee within the relevant area. The complexity of these negotiations likely will increase dramatically with their number, as each incumbent licensee seeks to obtain terms at least as good as all the others. Moreover, competitors seeking the spectrum for similar or other uses may enter into negotiations with the licensees. If so, it is quite possible that the circumstances of negotiation, rather than the relative value of the rights to the spectrum, may determine its final use. Even if the negotiations are successful, they likely will take considerable time, potentially delaying deployment of new services to the public and burdening the business plans of all the parties involved. In contrast, in an auction to restructure the band, the party planning new services can easily determine the current high bids for each license that covers the relevant geographic area and decide whether or not to proceed in a very short period of time.

[582] *See* 47 U.S.C. § 309(j). The Commission's statutory authority to grant licenses through a system of competitive bidding extends to initial licenses for use of the spectrum. In an auction to restructure the band, the Commission would make available initial licenses to use the spectrum pursuant to new service rules. New services rules would be applicable, regardless of whether the entire band plan has been revised. Thus, any restructuring auction would offer new licenses, whether conducted without, before, or after the adoption of a new band plan. The spectrum associated with these new initial licenses would include both spectrum previously licensed for use under prior service rules, if the licensees have exchanged their original licenses, and spectrum not previously authorized for use.

1, 4(i) and 303® of the Communications Act.[583] We further seek comment on the feasibility and effectiveness of a two-sided "restructuring" auction conducted by the FCC, both as described briefly below and as any commenters may propose.[584] We invite discussion of whether alternative mechanisms, such as privately conducted secondary market auctions, can or should be employed in conjunction with any FCC restructuring auction.[585] Commenters should identify the components of any proposals that they believe are essential to an effective restructuring auction, the Commission's authority to conduct an auction such as they propose, and also discuss the probable effect of modifying any significant components. Commenters should consider whether a private party could effectively conduct a two-sided auction involving existing licenses or otherwise facilitate restructuring the band and the likely efficiency of such a private secondary market auction compared to one conducted by the FCC that also includes unassigned ITFS spectrum. Could a private auction be conducted in coordination with a government auction? Are there any regulatory barriers to a privately conducted auction?

243. A restructuring auction may enable a transition to a more efficient and intensive use of the ITFS and MDS spectrum by enabling parties to aggregate spectrum blocks that serve their specific needs. The Commission could conduct a restructuring auction in conjunction with or as an alternative to the transition mechanisms previously discussed. Accordingly, we seek comment on whether a non-auction transition mechanism to a new band plan (such as that proposed by the Coalition) is essential to achieving more efficient and intensive use of this spectrum or whether a restructuring auction alone could achieve our objectives. If a two-sided restructuring auction is sufficient, should any aspect of the band plan be reconsidered? For example, if a restructuring auction is conducted to transition to a new band plan, would it be appropriate to modify the amount of spectrum associated with each license? Are six megahertz channels the most efficient size to auction, if an auction makes available large amounts of spectrum and permits the bidders to create customized spectrum blocks? If a two-sided restructuring auction is used in conjunction with one of transition mechanisms discussed above, we seek comment on whether the restructuring auction should take place before, or after, the non-auction transition.

1. A Two-Sided Auction to Restructure the ITFS Spectrum

244. We seek comment on whether to conduct a two-sided auction to restructure the ITFS band that includes ITFS spectrum in areas covered by existing licenses, provided that incumbent licensees

[583] *See* 47 U.S.C. §§ 151, 154(i), and 303(r).

[584] We note that 47 U.S.C. § 309(j)(8) requires that "all proceeds from the use of a competitive bidding system under this subsection shall be deposited in the Treasury in accordance with chapter 33 of title 31, United States Code." Accordingly, any two-sided auction must be designed so that payments made to incumbent licensees are not "proceeds from the use of competitive bidding" within the meaning of Section 309(j)(8) or moneys required to be deposited in the Treasury by 31 U.S.C. § 3301 *et seq*.

[585] The Commission continues to explore innovative policies and mechanisms that may further its spectrum management objectives. For example, the Commission has found that privately-conducted secondary auctions or other such market-oriented mechanisms could be used to facilitate the voluntary clearing of incumbent broadcasters from the 700 MHz bands and promote the early recovery of that spectrum for new uses. *See, e.g.,* Service Rules for the 746-776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, Carriage of the Transmissions of Digital Broadcast Stations, CS Docket No. 98-120, Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, MM Docket No. 00-39, *Third Report and Order*, 16 FCC Rcd 2703, 2718-2721, ¶¶ 37-44 (2001). The Commission also considered employing a Commission-conducted secondary auction in the 700 MHz bands, but ultimately decided that a privately-organized clearing mechanism would be better in that context. *See id.*

are willing to return their licenses and receive payments, along with ITFS spectrum in areas not currently licensed. The effectiveness of a restructuring auction will depend in part on incumbent ITFS licensees' willingness to participate. The Commission might facilitate participation by allowing incumbent licensees to receive value from wining bidders for their incumbent licenses. Such a mechanism should determine the amount incumbent licensees would receive from winning bidders to clear the spectrum. For winning bids for use of spectrum associated with one incumbent license, the incumbent licensee could receive the full amount of the winning bid directly from the buyer in return for the incumbent's transfer of its license to the buyer (subject, of course, to Commission approval under Section 310(d) of the Communications Act). The licensee would be free to use this payment as it sees fit, *e.g.*, to purchase less expensive spectrum and pay the costs of relocating, or to purchase new equipment, or to finance projects unconnected with ITFS. During the auction, incumbents dissatisfied with the amount they would receive based on current high bids for their license could place a higher bid. If, at the end of the auction, the incumbent licensee is the high bidder, the incumbent would "pay" themselves the amount of their final bid and retain their license at no net cost. In the unlikely event that no one bid on their license or a winning bidder defaults on its bid, the incumbent licensee would retain its license. These protections would enable incumbent licensees to participate in the two-sided auction without committing to giving up the spectrum. Incumbent licensees could obtain valuable information about market prices during the course of the auction which could result in a more efficient use of the licensee's resources and the public spectrum resource.

245. The effectiveness of a two-sided restructuring auction depends in part on clearly defining the spectrum rights associated with a license. If the winner of a license for ITFS spectrum in currently unassigned areas (geographic licensee) also wins an existing ITFS license encompassed by the geographic license, the incumbent license would be subsumed within the geographic license. It is also important to clearly identify the parties that may have rights with respect to spectrum associated with existing licenses. Multiple parties, including licensees and their lessees, may assert claims to ITFS spectrum associated with existing licenses. Potential claims by lessees may inhibit incumbent licensees from offering existing licenses in an auction. Even if they want to do so, licensees and lessees may be unable to resolve potential claims due to pre-auction uncertainty regarding the value of the license and the lease; the cost of replacement spectrum; and/or the cost of new or retuned equipment. Any disputed claims among such parties could reduce bidders' certainty that they will receive all the rights associated with the licenses. If such uncertainty deters participation in a restructuring auction, the restructuring auction may be less effective at assigning the new licenses to parties that value them most highly. Consequently, the restructuring auction must take potential claims into account, regardless of the ultimate validity of such claims. We seek comment on the extent and nature of probable claims and their effect, if any, on the interest of potential bidders in a restructuring auction. Are there rules that could be applied to all parties, subject to separately negotiated agreements, that would resolve uncertainty surrounding potential claims and facilitate the sale of existing licenses?

2. A Two-Sided Auction to Restructure the MDS and ITFS Spectrum

246. If a two-sided restructuring auction is feasible, we also could consider restructuring both the MDS and ITFS spectrum in one auction. Including MDS spectrum in such a two-sided restructuring auction would further enhance the opportunities for parties to learn the cost of combining and obtaining encumbered and unencumbered spectrum for new uses, all without engaging in costly and time consuming bilateral and multi-lateral negotiations. It also might reduce the need for complex transitional rules to migrate to a new band plan. We seek comment on the desirability and feasibility of including MDS spectrum in any restructuring auction. Commenters should address the extent to which incumbent MDS licensees are more or less likely than existing ITFS licensees to be willing and able to exchange their licenses and participate in a restructuring auction.

IV. PROCEDURAL MATTERS

A. *Ex Parte* Rules – Permit-But-Disclose

247. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed pursuant to the Commission's rules.[586]

B. Comment Period and Procedures

248. Pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's rules,[587] interested parties may file comments on this Notice on or before **[90 days from publication in the Federal Register]**, and reply comments on or before **[135 days from publication in the Federal Register]**. Comments and reply comments should be filed in WT Docket No. 03-66, and may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.[588] All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding.

249. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket number. Parties may also submit an electronic comment by e-mail via the Internet. To obtain filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message: "get form <your e-mail address>." A sample form and directions will be sent in reply.

250. Parties who choose to file by paper must file an original and four copies of each filing. If parties want each Commissioner to receive a personal copy of their comments, they must file an original plus nine copies. All filings must be sent to the Commission's Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Room TW-A325, Washington, D.C. 20554. Furthermore, parties are requested to provide courtesy copies for the following Commission staff: (1) Nancy Zaczek, Charles Oliver and Stephen Zak, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Room. 3-C124, Washington, D.C. 20554; and (2) Gary Michaels and Andrea Kelly, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Room. 4-A760, Washington, D.C. 20554. One copy of each filing (together with a diskette copy, as indicated below) should also be sent to the Commission's copy contractor, Qualex International, 445 12th Street, SW, Room CY-B402, Washington, DC, 20554, 202-863-2893.

251. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be attached to the original paper filing submitted to the Office of the Secretary. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using Microsoft ™ Word 97 for Windows or compatible software. The diskette should be accompanied by a cover letter and

[586] *See generally* 47 C.F.R. §§ 1.1202, 1.1203, 1.1206.

[587] *See* 47 C.F.R. §§ 1.415, 1.419.

[588] Electronic Filing of Documents in Rulemaking Proceedings, *Report and Order*, 13 FCC Rcd 11,322 (1998).

should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy – Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters should send diskette copies to the Commission's copy contractor, Qualex International, 445 12th Street, SW, Room CY-B402, Washington, DC, 20554, 202-863-2893.

252. The public may view the documents filed in this proceeding during regular business hours in the FCC Reference Information Center, Federal Communications Commission, 445 12th Street, S.W., Room CY-A257, Washington, D. C. 20554, and on the Commission's Internet Home Page: <http://www.fcc.gov>. Copies of comments and reply comments are also available through the Commission's duplicating contractor: Qualex International, 445 12th Street, SW, Room CY-B402, Washington, DC, 20554, 202-863-2893. Accessible formats (computer diskettes, large print, audio recording and Braille) are available to persons with disabilities by contacting Brian Millin, of the Consumer & Governmental Affairs Bureau, at (202) 418-7426, TTY (202) 418-7365, or at bmillin@fcc.gov.

C. Initial Regulatory Flexibility Analysis

253. As required by the Regulatory Flexibility Act of 1980 (RFA),[589] the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the Notice. The analysis is found in Appendix A. We request written public comment on the analysis. Comments must be filed in accordance with the same deadlines as comments filed in response to the *NPRM & MO&O*, and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this *NPRM & MO&O*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

D. Paperwork Reduction Analysis

254. This item proposes no new information collections.

E. Further Information

255. For further information concerning this rulemaking proceeding, contact Nancy Zaczek or Charles Oliver at (202) 418-0680, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Room. 4-C367, Washington, D.C. 20554; or via the Internet to *nzaczek@fcc.gov* or *coliver@fcc.gov*.

V. ORDERING CLAUSES

256. Accordingly, IT IS ORDERED, pursuant to sections 1, 2, 4(i), 7, 10, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333 and 706 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 154(i), 157, 160, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333, and 706, that this *Notice of Proposed Rulemaking and Memorandum Opinion and Order* is hereby ADOPTED.

257. IT IS FURTHER ORDERED that the five-year build-out requirements in section 21.930 of our rules, 47 C.F.R. § 21.930, IS SUSPENDED until further notice.

[589] *See* 5 U.S.C. § 603.

258. IT IS FURTHER ORDERED the build-out requirements for site-based ITFS and MDS licensees and permittees that have not expired as of the release date of this *Memorandum Opinion and Order* ARE SUSPENDED until further notice.

259. IT IS FURTHER ORDERED that applications for new MDS or ITFS licenses, major modifications of MDS stations, or major changes to ITFS stations other than applications for license assignments or transfers of control WILL NOT BE ACCEPTED until further notice.

260. With regard to mutually exclusive ITFS applications, IT IS FURTHER ORDERED that applications for acceptance of settlement agreements filed after the release date of this *Notice of Proposed Rulemaking and Memorandum Opinion and Order* WILL NOT BE ACCEPTED.

261. IT IS FURTHER ORDERED that NOTICE IS HEREBY GIVEN of the proposed regulatory changes described in this *NPRM & MO&O*, and that comment is sought on these proposals.

262. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *NPRM & MO&O*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

INITIAL REGULATORY FLEXIBILITY ANALYSIS

(For Notice of Proposed Rulemaking)

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[590] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this *Notice of Proposed Rule Making and Memorandum Opinion and Order (NPRM & MO&O)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines specified in the *NPRM & MO&O* for comments. The Commission will send a copy of this *NPRM & MO&O*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[591] In addition, the *NPRM & MO&O* and IRFA (or summaries thereof) will be published in the Federal Register.[592]

Need for, and Objectives of, the Proposed Rules

2. In this *NPRM* we propose a number of changes and ask for comments concerning the rules governing the 2500-2690 MHz band, for the Multipoint Distribution Service (MDS), the Multichannel Multipoint Distribution Service (MMDS), and the Instructional Television Fixed Service (ITFS). Our proposals include:

- Proposing technical rules to increase licensee flexibility;
- Seeking comment on revising the band plan;
- Proposing service rules for mobile operation;
- Proposing to encourage entrepreneurial efforts to develop new technologies and services by opening ITFS spectrum to a wide range of applicants;
- Proposing to simplify and streamline the licensing process;
- Proposing application filing and processing to facilitate electronic filing in ULS;
- Proposing to consolidate these services under Part 101;
- Tentatively concluding that MDS and ITFS licensees should receive a six-month transition period after application processing in ULS begins before requiring mandatory electronic filing in ULS;
- Suspending the acceptance and processing of applications in this band, with certain

[590] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[591] *See* 5 U.S.C. § 603(a).

[592] *See* 5 U.S.C. § 603(a).

exceptions, until the completion of this rulemaking proceeding;

- Suspending the current August 16, 2003 construction deadline for BTA authorization holders; and

- Proposing to assign ITFS licenses through competitive bidding.

3. We believe our proposals will encourage the enhancement of existing services using this band and the development of new innovative services to the public such as providing wireless broadband services, including high-speed Internet access and mobile services. We also believe that our proposals will allow licensees to adapt quickly to changing market conditions and the marketplace, rather than the government, to determine how this band will best be used.

Legal Basis

4. The proposed action is authorized under Sections 1, 2, 4(i), 7, 10, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333 and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 157, 160, 201, 214, 301, 302, 303, 307, 308, 309, 310, 319, 324, 332, 333, and 706.

Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

5. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules.[593] The RFA generally defines the term "small entity" as having the same meaning as the terms, "small business," "small organization," and "small governmental jurisdiction."[594] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[595] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[596] A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[597] Nationwide, as of 1992, there were approximately 275,801 small organizations.[598] The definition of "small governmental

[593] 5 U.S.C. § 603(b)(3).

[594] 5 U.S.C. § 601(6).

[595] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

[595] 15 U.S.C. § 632.

[596] 15 U.S.C. § 632.

[597] 5 U.S.C. § 601(4).

[598] 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

jurisdiction" is one with a population of fewer than 50,000.[599] There are 85,006 governmental jurisdictions in the nation.[600] This number includes such entities as states, counties, cities, utility districts and school districts. There are no figures available on how many of these entities have populations of fewer than 50,000. However, this number includes 38,978 counties, cities and towns, and of those, 37,556, or 96 percent, have populations of fewer than 50,000.[601] The Census Bureau estimates that this ratio is approximately accurate for all government entities. Thus, of the 85,006 governmental entities, we estimate that 96 percent, or about 81,600, are small entities that may be affected by our rules.

6. Nationwide, there are 4.44 million small business firms, according to SBA reporting data.[602] In this section, we further describe and estimate the number of small entity licensees and regulatees that may be affected by rules adopted pursuant to this NPRM. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the number of commercial wireless entities, appears to be the data that the Commission publishes in its *Trends in Telephone Service* report.[603] The SBA has developed small business size standards for wireline and wireless small businesses within the three commercial census categories of Wired Telecommunications Carriers,[604] Paging,[605] and Cellular and Other Wireless Telecommunications.[606] Under these categories, a business is small if it has 1,500 or fewer employees. Below, using the above size standards and others, we discuss the total estimated numbers of small businesses that might be affected by our actions.

7. *Multipoint Distribution Service, Multichannel Multipoint Distribution Service, and ITFS.* Multichannel Multipoint Distribution Service (MMDS) systems, often referred to as "wireless cable," transmit video programming to subscribers using the microwave frequencies of the Multipoint Distribution Service (MDS) and Instructional Television Fixed Service (ITFS).[607] In connection with the 1996 MDS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of less than $40 million in the previous three calendar years.[608] The MDS

[599] 5 U.S.C. § 601(5).

[600] 1992 Census of Governments, U.S. Bureau of the Census, U.S. Department of Commerce.

[601] *Id.*

[602] *See* 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

[603] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, Table 5.3 (May 2002) (*Trends in Telephone Service*).

[604] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 513310 (changed to 517110 in October 2002).

[605] 13 C.F.R. § 121.201, NAICS code 513321 (changed to 517211 in October 2002).

[606] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[607] Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding, MM Docket No. 94-131 and PP Docket No. 93-253, *Report and Order*, 10 FCC Rcd 9589, 9593 ¶ 7 (1995) (*MDS Auction R&O)*.

[608] 47 C.F.R. § 21.961(b)(1).

auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. MDS also includes licensees of stations authorized prior to the auction. In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution, which includes all such companies generating $12.5 million or less in annual receipts.[609] According to Census Bureau data for 1997, there were a total of 1,311 firms in this category, total, that had operated for the entire year.[610] Of this total, 1,180 firms had annual receipts of under $10 million and an additional 52 firms had receipts of $10 million or more but less than $25 million. Consequently, we estimate that the majority of providers in this service category are small businesses that may be affected by the rules and policies adopted herein. This SBA small business size standard also appears applicable to ITFS. There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.[611] Thus, we tentatively conclude that at least 1,932 licensees are small businesses.

8. In connection with the 1996 MDS auction, the Commission defined "small business" as an entity that, together with its affiliates, has average gross annual revenues that are not more than $40 million for the preceding three calendar years.[612] The Commission established this small business definition in the context of this particular service and with the approval of SBA.[613] The MDS auction resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs).[614] Of the 67 auction winners, 61 met the definition of a small business. At this time, we estimate that of the 61 small business MDS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent MDS licensees that are considered small entities.[615] After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 MDS licensees that are defined as small businesses under either the SBA or the Commission's rules. Some of those 440 small business licensees may be affected by the proposals in this *NPRM & MO&O*.

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[609] 13 C.F.R. § 121.201, NAICS code 513220 (changed to 517510 in October 2002).

[610] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)", Table 4, NAICS code 513220 (issued October 2000).

[611] In addition, the term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on ITFS licensees.

[612] 47 C.F.R. § 21.961(b)(1).

[613] *See MDS Auction R&O,* 10 FCC Rcd 9589.

[614] Basic Trading Areas (BTAs) were designed by Rand McNally and are the geographic areas by which MDS was auctioned and authorized. *See Id.* at 9608.

[615] 47 U.S.C. § 309(j). (Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard for "other telecommunications" (annual receipts of $11 million or less)). *See* 13 C.F.R. 121.201, NAICS code 513220.

9. MDS is also heavily encumbered with licensees of stations authorized prior to the auction. The SBA has developed a definition of small entities for pay television services that includes all such companies generating $11 million or less in annual receipts.[616] This definition includes multipoint distribution systems, and thus applies to MDS licensees and wireless cable operators that did not participate in the MDS auction. Information available to us indicates that there are [832] of these licensees and operators that do not generate revenue in excess of $11 million annually. Therefore, for purposes of this IRFA, we find there are approximately [892] small MDS providers as defined by the SBA and the Commission's auction rules, and some of these providers may take advantage of our amended rules to provide two-way MDS.

10. There are presently [2032] ITFS licensees. All but [100] of these licenses are held by educational institutions (these [100] fall in the MDS category, above). Educational institutions may be included in the definition of a small entity.[617] ITFS is a non-profit non-broadcast service that, depending on SBA categorization, has, as small entities, entities generating either $10.5 million or less, or $11.0 million or less, in annual receipts.[618] However, we do not collect, nor are we aware of other collections of, annual revenue data for ITFS licensees. Thus, we find that up to [1932] of these educational institutions are small entities that may take advantage of our amended rules to provide additional flexibility to ITFS.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

11. As noted previously,[619] applicants for MDS or ITFS licenses would be required to apply through the Universal Licensing System using FCC Form 601,[620] and other appropriate forms.[621] Licensees will also be required to apply for an individual station license by filing FCC Form 601 for those individual stations that (1) require submission of an Environmental Assessment of the facilities under Section 1.1307 of our Rules;[622] (2) require international coordination of the application;[623] or (3) require coordination with the Frequency Assignment Subcommittee (FAS) of the Interdepartment Radio Advisory Committee (IRAC). While these requirements are new with respect to potential licensees in the ITFS and MDS bands, the Commission has applied these requirements to licensees in other bands. Moreover, the Commission is also proposing to eliminate many burdensome filing requirements that have previously been applied to MDS and ITFS.

[624]**Steps Taken to Minimize Significant Economic Impact on Small Entities, and**

[616] 13 C.F.R. § 121.201.

[617] *See* 5 U.S.C. §§ 601 (3)-(5).

[618] *See* 13 C.F.R. § 121.210 (SIC 4833, 4841, and 4899).

[619] *See* para 159 *supra*.

[620] 47 C.F.R. § 1.913(a)(1).

[621] 47 C.F.R. § 1.2107.

[622] 47 C.F.R. § 1.1307.

[623] *See e.g.*, 47 C.F.R. § 1.928 (regarding frequency coordination arrangements between the U.S. and Canada).

[624] *See* paras. 161-170 and 173-182, *supra.*

Significant Alternatives Considered.

12. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for such small entities; (3) the use of performance, rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities."[625]

13. In this *NPRM & MO&O*, we seek comment on a number of proposals and alternatives regarding the use of the 2500-2690 MHz band. This *NPRM & MO&O* seeks to adopt rules that will reduce regulatory burdens, promote innovative services and encourage flexible use of this spectrum. It opens up economic opportunities to a variety of spectrum users, including small businesses. We consider various proposals and alternatives partly because we seek to minimize, to the extent possible, the economic impact on small businesses.

14. We have reduced the burdens wherever possible. To minimize any further negative impact, however, we propose certain exclusive incentives for small entities that will redound to their benefit. We propose the use of bidding credits for small entities that participate in auctions of licenses that are conducted pursuant to the rules proposed in this *NPRM & MO&O*. We propose to define a "small business" as an entity with average annual gross revenues for the preceding three years not exceeding $40 million, a "very small business" as an entity with average gross revenues for the preceding three years not exceeding $15 million, and an "entrepreneur" as an entity with average annual gross revenues for the preceding three years not exceeding $3 million.[626] We propose that entities qualifying as small businesses will receive a 15% bidding credit, that entities qualifying as very small businesses will receive a 25% bidding credit, and that entities qualifying as entrepreneurs will receive a 35% bidding credit. Qualifying small businesses, very small businesses, and entrepreneurs can reduce their winning bids by the amount of their bidding credits. We believe that these bidding credits will help small entities compete in our auctions and acquire licenses. We seek comment on our proposed small business definitions and bidding credits, including information on factors that may affect the capital requirements of the type of services a licensee may seek to provide.

15. The regulatory burdens contained in the *NPRM & MO&O,* such as filing applications on appropriate forms, are necessary in order to ensure that the public receives the benefits of innovative new services, or enhanced existing services, in a prompt and efficient manner. We will continue to examine alternatives in the future with the objectives of eliminating unnecessary regulations and minimizing any significant economic impact on small entities. We seek comment on significant alternatives commenters believe we should adopt.

Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rule

16. None.

[625] *See* 5 U.S.C. § 603(c).

[626] *See supra* para. 234.

APPENDIX B

PROPOSED RULES

1. For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR Parts 1, 21, 73, 74, and 101 as follows:

2. Part 1 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for Part 1 continues to read:

Authority: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303®, 309 and 325(e).

2. Section 1.933(c) is amended to add subparagraphs (8) and (9) as follows:

* * * * *

(8) Multipoint Distribution Service.
(9) Instructional Television Fixed Service.

3. Section 1.1102 is amended by amending paragraph 20 to read as follows:

20. Multipoint Distribution Service (including Multi-channel MDS)

a. New Station 601 & 159 220.00 CJM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
b. Major Modification of License 601 &159 220.00CJM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358994, Pittsburgh, PA 15251-5155.
c. Certification of Completion of Construction 601 & 159 80.00 CJM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
d. License Renewal 601 & 159 220.00 CJM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.

e. Assignment or Transfer:

(b) First Station on Application	603 & 159	80.00	CCM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
(ii) Each Additional Station	603 & 159	50.00	CAM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
f. Extension of Construction Authorization	601 & 159	185.00	CHM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.
g. Special Temporary Authority or Request for Waiver of Prior Construction Authorization	Corres & 159	100.00	CEM	Federal Communications Commission, Wireless Bureau Applications, P.O. Box 358155, Pittsburgh, PA 15251-5155.

(b) * * * *

Under the authority 47 U.S.C. § 154, amend 47 C.F.R. chapter I by removing Part 21.

3. Part 74 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

PART 74 – EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCASTING AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

1. The authority citation for Part 74 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, 307, 336(f), 336(h) and 554.

(b) Section 74.1 is revised to read as follows:

b) Rules in Part 74 which apply exclusively to a particular service are contained in that service subpart, as follows: Experimental Broadcast Stations, Subpart A; Remote Pickup Broadcast Stations, Subpart D; Aural Broadcast STL and Intercity Relay Stations, Subpart E; TV Auxiliary Broadcast Stations, Subpart F; Low Power TV, TV Translator and TV Booster Stations,

Subpart G; Low Power Auxiliary Stations, Subpart H; FM Broadcast Translator Stations and FM Broadcast Booster Stations, Subpart L.

3. Subpart I is reserved.

4. Part 101 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

1. The authority citation for Part 101 continues to read as follows:

AUTHORITY: 47 U.S.C. 154 and 303, unless otherwise noted.

2. Section 101.3 is amended to add the following definitions:

* * * *

Instructional Television Fixed Service. A fixed or mobile service intended primarily for video, data, or voice transmissions of instructional, cultural, and other types of educational material to one or more receiving locations.

(b) * * *

Multipoint Distribution Service. A domestic public radio service rendered on microwave frequencies from one or more stations transmitting to multiple receiving facilities.

(b) Section 101.101 of the Commission's Rules is amended to read as follows:

	Radio service				
Frequency band (MHz)	Common carrier (Part 101)	Private radio (Part 101)	Broadcast auxiliary (Part 74)	Other (Parts 15, 22, 24 25, 74, 78, and 100)	Notes
* * * *					
2450-2500	LTTS	OFS	TV BAS	ISM	F/M/TF
2500-2650	ITFS MDS	ITFS MDS			
2650-2690	ITFS MDS	OFS MDS/ITFS			

(b) * * *

BAS: Broadcast Auxiliary Service–(Part 74)
CARS: Cable Television Relay Service –(Part 78)
CC: Common Carrier Fixed Point-to-Point Microwave Service–(Part 101, Subparts C & I)
DBS: Direct Broadcast Satellite–(Part 100)
DEMS: Digital Electronic Message Service–(Part 101, Subpart G)
ISM: Industrial, Scientific & Medical–(Part 18)
ITFS: Instructional Television Fixed Service–(Part 101, Subpart P)
LTTS: Local Television Transmission Service–(Part 101, Subpart J)

MAS: Multiple Address System–(Part 101)
MDS: Multipoint Distribution Service–(Part 101, Subpart Q)
OFS: Private Operational Fixed Point-to-Point Microwave Service–(Part 101, Subparts C & H)
PCS: Personal Communications Service–(Part 24)
PET: Emerging Technologies (per ET Dkt. No. 92-9, not yet assigned)
PRS: Paging and Radiotelephone Service–
(Part 22, Subpart E)
SAT: Fixed Satellite Service–(Part 25)

4. Part 101 is amended to add a new Subpart P, as follows:

Subpart P: Instructional Television Fixed Service

101.1401 Purpose and Permissible Service:

(a)(1) Instructional television fixed stations are intended primarily through video, data, or voice transmissions to further the educational mission of accredited public and private schools, colleges and universities providing a formal educational and cultural development to enrolled students. Authorized instructional television fixed station channels must be used to further the educational mission of accredited schools offering formal educational courses to enrolled students.

(2) In furtherance of the educational mission of accredited schools, instructional television fixed station channels may be used for:

(b) In-service training and instruction in special skills and safety programs, extension of professional training, informing persons and groups engaged in professional and technical activities of current developments in their particular fields, and other similar endeavors.

(ii) Transmission of material directly related to the administrative activities of the licensee, such as the holding of conferences with personnel, distribution of reports and assignments, exchange of data and statistics, and other similar uses.

(iii) Response channels transmitting information associated with formal educational courses offered to enrolled students, including uses described in paragraphs (a)(2)(i) and (ii) of this section, from ITFS response stations to response station hubs

(b) Stations may be licensed in this service as originating or relay stations to interconnect instructional television fixed stations in adjacent areas, to deliver instructional and cultural material to, and obtain such material from, commercial and noncommercial educational television broadcast stations for use on the instructional television fixed system, and to deliver instructional and cultural material to, and obtain such material from, nearby terminals or connection points of closed circuit educational television systems employing wired distribution systems or radio facilities authorized under other parts of this Chapter, or to deliver instructional and cultural material to any CATV system serving a receiving site or sites which would be eligible for direct reception of ITFS signals under the provisions of paragraph (a) of this section.

(3) When an ITFS licensee makes capacity available on a common carrier basis, it will be subject to common carrier regulation.

(1) A licensee operating as a common carrier is required to comply with all policies and rules applicable to that service. Responsibility for making the initial determination of whether a particular activity is common carriage rests with the ITFS licensee.

(2) An ITFS licensee also may alternate, without further authorization required, between rendering service on a common carrier and non-common carrier basis, provided that the licensee notifies the Commission of any service status changes at least 30 days in advance of such changes. The notification shall state whether there is any affiliation or relationship to any intended or likely subscriber

or program originator.

101.1402 BTA license authorization.

(a) Winning bidders must file an application (FCC Form 601) for an initial authorization in each market and frequency block.

(b) Blanket licenses are granted for each market and frequency block. Blanket licenses cover all mobile and response stations. Blanket licenses also cover all fixed stations anywhere within the authorized service area, except as follows:

(1) A fixed station (other than a response station) would be required to be individually licensed if:

(i) International agreements require coordination;

(ii) Submission of an Environmental Assessment is required under § 1.1307 of this chapter;

(iii) The station would affect the radio quiet zones under § 1.924 of this chapter.

(2) Any antenna structure that requires notification to the Federal Aviation Administration (FAA) must be registered with the Commission prior to construction under § 17.4 of this chapter.

101.1403 Service areas.

Most ITFS service areas are Basic Trading Areas (BTAs). BTAs are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39. The following are additional ITFS service areas in places where Rand McNally has not defined BTAs: American Samoa; Guam; Northern Mariana Islands; Mayaguez/Aguadilla-Ponce, Puerto Rico; San Juan, Puerto Rico; and the United States Virgin Islands. The Mayaguez/Aguadilla-Ponce, PR, service area consists of the following municipios: Adjuntas, Aguada, Aguadilla, Anasco, Arroyo, Cabo Rojo, Coamo, Guanica, Guayama, Guayanilla, Hormigueros, Isabela, Jayuya, Juana Diaz, Lajas, Las Marias, Maricao, Maunabo, Mayaguez, Moca, Patillas, Penuelas, Ponce, Quebradillas, Rincón, Sabana Grande, Salinas, San German, Santa Isabel, Villalba and Yauco. The San Juan service area consists of all other municipios in Puerto Rico.

101.1404 Conversion of incumbent ITFS stations to geographic area licensing.

(a) Any ITFS station licensed by the Commission prior to [date to be decided] as well as assignments and transfers approved by the Commission and consummated as of [date to be decided] shall be considered incumbent and grandfathered (may continue to operate under their licensed parameters).

(b) As of [date to be decided], all incumbent ITFS licenses shall be converted to a blanket license. Pursuant to that geographic area license, such incumbent licensees may modify their systems provided the signal level [specific level to be decided] does not increase outside their pre-existing protected service area. The blanket license covers all fixed stations anywhere within the authorized service area, except as follows:

(1) A fixed station (other than a response station) would be required to be individually licensed if:

(i) International agreements require coordination;

(ii) Submission of an Environmental Assessment is required under § 1.1307 of this chapter;

(iii) The station would affect the radio quiet zones under § 1.924 of this chapter.

(2) Any antenna structure that requires notification to the Federal Aviation Administration (FAA) must be registered with the Commission prior to construction under § 17.4 of this chapter.

Incumbent operators and geographic area licensees may negotiate alternative criteria.

(c) The frequencies associated with incumbent authorizations that have been cancelled automatically or otherwise been recovered by the Commission will automatically revert to the applicable BTA licensee.

101.1405 Performance Requirements

(a) Incumbent site-based licensees are subject to the construction requirements set forth in § 101.63.

(b)) All ITFS BTA licensees must demonstrate substantial service at the time of license renewal. A licensee's substantial service showing should include, but not be limited to, the following information for each channel for which it holds a license, in each BTA or portion of a BTA covered by their license, in order to qualify for renewal of that license. The information provided will be judged by the Commission to determine whether the licensee is providing service which rises to the level of "substantial."

(1) A description of the ITFS licensee's current service in terms of geographic coverage;

(2) Copies of all orders or other adjudications that the licensee has violated the Communications Act or the Commission's Rules or policies;

(3) A description of the ITFS band licensee's current service in terms of population served, as well as any additional service provided during the license term;

(4) A description of the ITFS licensee's investments in its system(s) (type of facilities constructed and their operational status is required);

(b) Any ITFS licensees adjudged not to be providing substantial service will not have their licenses renewed.

101.1406 Partitioning and Disaggregation

a) Eligibility.

(1) Parties seeking approval for partitioning and disaggregation shall request from the Commission an authorization for partial assignment of license. Geographic area licensees may participate in aggregation, disaggregation, and partitioning within the bands licensed on a geographic area basis.

(2) Eligible ITFS licensees may apply to the Commission to partition their licensed geographic service areas to eligible entities and are free to determine the portion of their service areas to be partitioned. Eligible ITFS licensees may aggregate or disaggregate their licensed spectrum at any time following the grant of a license.

(b) Technical standards–

(b) There is no limitation on the amount of spectrum that an ITFS licensee may aggregate.

(2) Spectrum may be disaggregated in any amount. A licensee need not retain a minimum amount of spectrum.

(3) In the case of partitioning, applicants and licensees must file FCC Form 603 pursuant to § 1.948 of this chapter and list the partitioned service area on a schedule to the application. The geographic coordinates must be specified in degrees, minutes, and seconds to the nearest second of latitude and longitude, and must be based upon the 1983 North American Datum (NAD83).

(4) Combined partitioning and disaggregation. The Commission will consider requests from geographic area licensees for partial assignment of licenses that propose combinations of partitioning and disaggregation.

(c) Construction requirements.

(1) Disaggregation. Partial assignors and assignees for license disaggregation have two options to meet construction requirements. Under the first option, the disaggregator and Disaggregate would certify that they each will share responsibility for meeting the applicable construction requirements set forth in § 101.1406 for the geographic service area. If parties choose this option and either party fails to

demonstrate substantial service, both licenses would be subject to forfeiture at renewal. The second option allows the parties to agree that either the disaggregator or disaggregate would be responsible for meeting the requirements in § 101.1405 for the geographic service area. If parties choose this option, and the party responsible for meeting the construction requirement fails to do so, only the license of the non-performing party would be subject to forfeiture at renewal.

(2) Partitioning. Partial assignors and assignees for license partitioning have two options to meet construction requirements. Under the first option, the partitionor and partitionee would each certify that they will independently provide substantial service for their respective partitioned areas. If either licensee fails to meet its requirement in § 101.1405, only the non-performing licensee's renewal application would be subject to dismissal. Under the second option, the partitionor certifies that it has met or will meet the requirement in § 101.1405 for the entire market. If the partitionor fails to meet the requirement in § 101.1405, however, only its license would be subject to forfeiture at renewal.

(3) All applications requesting partial assignments of license for partitioning or disaggregation must certify in the appropriate portion of the application which construction option is selected.

(4) Responsible parties must submit supporting documents as required by § 101.1405.

(d) License term. The license term for a partitioned license area and for disaggregated spectrum shall be the remainder of the original licensee's license term.

(b) Remote Control Operation.

Licensed ITFS stations may be operated by remote control without further authority.

101.1408 Unattended Operation

Unattended operation of licensed ITFS stations is permitted without further authority. An unattended relay station may be employed to receive and retransmit signals of another station provided that the transmitter is equipped with circuits which permit it to radiate only when the signal intended to be retransmitted is present at the receiver input terminals.

101.1409 License Term

(a) Incumbent ITFS licenses shall be issued for a period of 10 years beginning with the date of grant.

(b) A BTA authorization shall be issued for a period of ten years from the date the Commission declared bidding closed in the ITFS auction.

(b) Part 101 is amended to add a new Subpart Q, as follows:

Subpart Q: Multipoint Distribution Service:

101.1501 Purpose and Permissible Service:

Multipoint Distribution Service stations may provide any fixed or mobile services for which its frequency bands are allocated, subject to the technical and other rules contained in this part and subpart.

101.1502 BTA license authorization.

(a) Winning bidders must file an application (FCC Form 601) for an initial authorization in

each market and frequency block.

(b) Blanket licenses are granted for each market and frequency block. Blanket licenses cover all mobile and response stations. Blanket licenses also cover all fixed stations anywhere within the authorized service area, except as follows:

(1) A fixed station (other than a response station) would be required to be individually licensed if:

(i) International agreements require coordination;

(ii) Submission of an Environmental Assessment is required under § 1.1307 of this chapter;

(iii) The station would affect the radio quiet zones under § 1.924 of this chapter.

(2) Any antenna structure that requires notification to the Federal Aviation Administration (FAA) must be registered with the Commission prior to construction under § 17.4 of this chapter.

101.1503 Service areas.

MDS service areas are Basic Trading Areas (BTAs). BTAs are based on the Rand McNally *1992 Commercial Atlas & Marketing Guide*, 123rd Edition, at pages 38-39, with the following additions licensed separately as BTA-like areas: American Samoa; Guam; Northern Mariana Islands; Mayaguez/Aguadilla-Ponce, Puerto Rico; San Juan, Puerto Rico; and the United States Virgin Islands. The isaggre/Aguadilla-Ponce BTA-like service area consists of the following municipios: Adjuntas, Aguada, Aguadilla, Anasco, Arroyo, Cabo Rojo, Coamo, Guanica, Guayama, Guayanilla, Hormigueros, Isabela, Jayuya, Juana Diaz, Lajas, Las Marias, isaggre, Maricao, Maunabo, Moca, Patillas, Penuelas, Ponce, Quebradillas, isagg, Sabana Grande, Salinas, San German, Santa Isabel, Villalba and Yauco. The San Juan BTA-like service area consists of all other municipios in Puerto Rico.

101.1504 Conversion of incumbent MDS stations to geographic area licensing.

(a) Any MDS station licensed by the Commission prior to [date to be decided] as well as assignments and transfers approved by the Commission and consummated as of [date to be decided] shall be considered incumbent and grandfathered (may continue to operate under their licensed parameters).

(b) As of [date to be decided], all incumbent MDS licenses shall be converted to a blanket license. Pursuant to that geographic area license, such incumbent licensees may modify their systems provided the signal level [specific level to be decided] does not increase outside their pre-existing protected service area. The blanket license covers all fixed stations anywhere within the authorized service area, except as follows:

(1) A fixed station (other than a response station) would be required to be individually licensed if:

(i) International agreements require coordination;

(ii) Submission of an Environmental Assessment is required under § 1.1307 of this chapter;

(iii) The station would affect the radio quiet zones under § 1.924 of this chapter.

(2) Any antenna structure that requires notification to the Federal Aviation Administration (FAA) must be registered with the Commission prior to construction under § 17.4 of this chapter.

® The frequencies associated with incumbent authorizations that have been cancelled automatically or otherwise been recovered by the Commission will automatically revert to the applicable BTA licensee.

101.1505 Performance Requirements

(a) Incumbent site-based licensees are subject to the construction requirements set forth in § 101.63.

(b)) All MDS BTA licensees must demonstrate substantial service at the time of license

renewal. A licensee's substantial service showing should include, but not be limited to, the following information for each channel for which it holds a license, in each BTA or portion of a BTA covered by their license, in order to qualify for renewal of that license. The information provided will be judged by the Commission to determine whether the licensee is providing service which rises to the level of "substantial."

(1) A description of the MDS licensee's current service in terms of geographic coverage;

(2) Copies of all orders or other adjudications that the licensee has violated the Communications Act or the Commission's Rules or policies;

(3) A description of the MDS licensee's current service in terms of population served, as well as any additional service provided during the license term;

(4) A description of the MDS licensee's investments in its system(s) (type of facilities constructed and their operational status is required);

(b) Any MDS licensees adjudged not to be providing substantial service will not have their licenses renewed.

101.1506 Partitioning and Disaggregation

a) Eligibility.

(1) Parties seeking approval for partitioning and disaggregation shall request from the Commission an authorization for partial assignment of license. Geographic area licensees may participate in aggregation, disaggregation, and partitioning within the bands licensed on a geographic area basis.

(2) Eligible MDS licensees may apply to the Commission to partition their licensed geographic service areas to eligible entities and are free to determine the portion of their service areas to be partitioned. Eligible MDS licensees may aggregate or disaggregate their licensed spectrum at any time following the grant of a license.

(b) Technical standards–

(b) There is no limitation on the amount of spectrum that an MDS licensee may aggregate.

(2) Spectrum may be disaggregated in any amount. A licensee need not retain a minimum amount of spectrum.

(3) In the case of partitioning, applicants and licensees must file FCC Form 603 pursuant to § 1.948 of this chapter and list the partitioned service area on a schedule to the application. The geographic coordinates must be specified in degrees, minutes, and seconds to the nearest second of latitude and longitude, and must be based upon the 1983 North American Datum (NAD83).

(4) Combined partitioning and disaggregation. The Commission will consider requests from geographic area licensees for partial assignment of licenses that propose combinations of partitioning and disaggregation.

® Construction requirements.

(1) Disaggregation. Partial assignors and assignees for license disaggregation have two options to meet construction requirements. Under the first option, the disaggregator and isaggregate would certify that they each will share responsibility for meeting the applicable construction requirements set forth in § 101.1505 for the geographic service area. If parties choose this option and either party fails to demonstrate substantial service, both licenses would be subject to forfeiture at renewal. The second option allows the parties to agree that either the disaggregator or isaggregate would be responsible for meeting the requirements in § 101.1505 for the geographic service area. If parties choose this option, and the party responsible for meeting the construction requirement fails to do so, only the license of the non-performing party would be subject to forfeiture at renewal.

(2) Partitioning. Partial assignors and assignees for license partitioning have two options to meet construction requirements. Under the first option, the partitionor and partitionee would each certify that they will independently provide substantial service for their respective partitioned areas. If either licensee fails to meet its requirement in § 101.1505, only the non-performing licensee's renewal

application would be subject to dismissal. Under the second option, the partitionor certifies that it has met or will meet the requirement in § 101.1505 for the entire market. If the partitionor fails to meet the requirement in § 101.1505, however, only its license would be subject to forfeiture at renewal.

(3) All applications requesting partial assignments of license for partitioning or disaggregation must certify in the appropriate portion of the application which construction option is selected.

(4) Responsible parties must submit supporting documents as required by § 101.1405.

(d) License term. The license term for a partitioned license area and for disaggregated spectrum shall be the remainder of the original licensee's license term.

(b) Remote Control Operation.

MDS stations may be operated by remote control without further authority.

101.1508 Unattended Operation

Unattended operation of licensed MDS stations is permitted without further authority. An unattended relay station may be employed to receive and retransmit signals of another station provided that the transmitter is equipped with circuits which permit it to radiate only when the signal intended to be retransmitted is present at the receiver input terminals.

101.1509 License Term

(a) Incumbent MDS licenses shall be issued for a period of 10 years beginning with the date of grant.

(b) A BTA authorization shall be issued for a period of ten years from the date the Commission declared bidding closed in the MDS auction.

APPENDIX C

THE COALITION PLAN

1. The Coalition proposes to split the 2500-2690 MHz band into three segments, with the middle segment being reserved for high-powered MDS and ITFS stations and the two segments above and below it reserved for low-powered operations. Transition to the new band plan would proceed on a market-by-market basis at the instigation of parties ("Proponents") offering to pay the conversion costs of all affected ITFS operators. No deadlines would apply unless and until a Proponent offered to fund a market's transition. Instead, the Coalition provides a detailed description of nine safe proposals; if a Proponent offers any of the nine compensation schemes, the incumbent would be required to accept it. The Coalition proposes that every MDS and ITFS licensee be assigned a geographic service area. Existing circular protected service areas would be converted to geographic service areas with signal strength limits applied at their boundaries.

Coalition Band Plan

2. ITFS and all but two of the MDS channels are located in the 2500 – 2690 MHz band. The Coalition has requested the adoption of a new plan for this band, which consists of multiple interleaved 6-MHz channels. According to the Coalition, the intermixing of the two types of system designs (high-power/high site and low-power cellular systems) causes interference problems because the two system designs are fundamentally incompatible.[627] To eliminate this interference problem, the Coalition proposes that we establish a new band plan that isolates high-power, high-site systems from two-way cellular systems by separating the two different uses into different segments within the band.[628] The Coalition notes that the plan allows entities to obtain contiguous spectrum and best provides for two promising technologies – Frequency Division Duplex (FDD) and Time Division Duplex (TDD) technologies.

3. The Coalition proposes to divide the band into three major band segments consisting of the Lower Band Segment (LBS), the Middle Band Segment (MBS) and the Upper Band Segment (UBS) and three minor segments consisting of the I, J and K bands. The LBS would have twelve 5.5-megahertz wide channels extending from 2500 – 2566 MHz, the MBS would have seven 6-megahertz wide channels extending from 2572 – 2614 MHz[629] and the UBS would have twelve 5.5-megahertz wide channels extending from 2620 – 2686 MHz. The Coalition proposes to permit low-power operations in the LBS

[627] Coalition Proposal at 14. The Coalition states that "high-power, high-site one-way operations tend to cause two types of problems. First, high-power, high-site one-way operations tend to cause interference to co-channel cellular system base stations that are located quite far away. This is because those base stations feature relatively sensitive reception antennas (to 'hear' signals from low-power subscriber equipment) and those base station antennas generally are located above the ground clutter (and thus more likely to have an uninterrupted transmission path from the co-channel high-power, high-site station in a neighboring market). Thus, these base stations are by their nature sensitive to co-channel interference. Second, transmissions from portable, nomadic and mobile subscriber equipment in cellular networks pose the potential to cause brute force overload of close-by equipment used to receive high-power, high-site services." *See* Coalition Proposal at 10.

[628] While comments filed in response to our public notice support the Coalition plan, including transition, in general, several commenters disagreed with parts of the Coalition plan. *See e.g.,* MMDS Licensee Coalition comments and Alliance of Independent Wireless Video Operators comments.

[629] The Coalition states that it considered the possibility of reducing the size of the MBS allocation on a market-by-market basis. It concluded, however, that the benefits of a fixed 42 megahertz wide MBS far outweigh any possible benefits from a market-by-market approach. *See* Coalition Proposal at 17.

and UBS segments while permitting high-power video operations in the MBS.[630] However, low-power systems could use the MBS segment if the demand were to arise.[631] In addition, to protect MBS high-power operations, the Coalition proposes special restrictions on the operation of channels closest to the MBS. The Coalition seeks to provide each licensee with the same quantity of spectrum it has now but to distribute it differently.[632] The Coalition states that a licensee that presently has four interleaved 6 MHz channels and four interleaved 125 kHz channels will have 16.5 MHz of contiguous spectrum in either the LBS or UBS, 6 MHz of spectrum in the MBS, 500 kHz of contiguous spectrum in the I Band and 1.5 MHz of contiguous spectrum in a transition band[633] after the transition."[634] We invite comments on all aspects of the proposed Coalition band plan and transition process.

The I band under the Coalition proposal would have thirty-two 125 KHz-wide channels extending from 2686-2690 (response channels). The J band would have four 1.5 MHz-wide channels extending from 2566-2572 MHz. The J band is located between the LBS and the MBS. The K band would have four 1.5 MHz-wide channels extending from 2614-2620 MHz. Both the J and K bands will serve as transition bands. The K band is located between the MBS and the UBS.[635] In addition to reducing interference, the Coalition argues that a fixed band for high-powered operations (*i.e.,* the MBS) "translates directly into less complex, less expensive cellular system equipment, particularly customer equipment and promotes roaming."[636]

Coalition Band Plan Chart

Lower Band (LBS)	Band	Middle Band (MBS)	Band	Upper Band (UBS)	Band

500 566 572 614 2620 686 690

[630] Coalition Proposal at 12.

[631] It could be used for downstream transmissions in a FDD system so long as the licensee meets the MBS technical and operational rules. Also, with the consent of impacted licensees, it could be used for upstream communications. *See* Coalition Proposal at 17 and Appendix B at 3.

[632] Coalition Proposal, Appendix B at 2.

[633] Under the Coalition plan, each licensee contributes spectrum to the Transition Bands (500 kHz for every channel in the LBS or UBS). *See* Coalition Proposal at 16, n43. Also, the Coalition notes that it has not agreed as of yet on a system of licensing and technical rules for the Transition Bands. *See* Coalition Proposal at 19, n.47.

[634] Coalition Proposal at 12.

[635] The Coalition asserts that a 6 megahertz separation is required between MBS operations and two-way services operating in close proximity to an MBS receive site in order to protect reception of MBS video signals from beat interference. *See* Coalition Proposal at 14, n.35. It also argues that operations in these two bands be secondary to operations in the LBS, MBS and UBS bands unless otherwise agreed upon. *See* Coalition Proposal at 22. We note that the *3G Final Report* noted only that a guardband of at least two megahertz was needed to protect incumbent high-powered systems from adjacent channel interference. *See 3G Final Report* at 47-52.

[636] Coalition Proposal at 17-18.

4. The Coalition recommends a market-by-market transition process to the new band plan that allows MDS and ITFS licensees to continue to operate pursuant to the current rules until an MDS or ITFS licensee triggers the transition process. They say that each of the market-by-market transition processes they propose will have four fundamental phases: (i) identifying the MDS and ITFS licensees that will have to participate in a given transition; (ii) planning the transition; (iii) physically shifting educational ITFS programming tracks to spectrum in the MBS and outfitting eligible ITFS receive sites with improved downconverters designed to limit the reception of signals from outside the high-power band; and (iv) terminating existing operations in transitioned markets that do not comport with the new rules.

Identifying the Parties to the Transition Process

5. As part of the basis it proposes for determining which licensees will participate in its proposed market-by-market transition process, the Coalition introduces a concept that they refer to as a "transition impact area" ("TIA").[637] They recommend that the TIA for a station be defined as its geographic service area plus, in the case of ITFS licensees, the specific location of any ITFS reception site certified as eligible to receive a new downconverter under the transition rules. However, they urge that there be one exception to the general approach for establishing the boundaries of GSAs and TIAs. They say that the GSAs of BTA authorization holders may be extremely large and a BTA authorization holder may not intend to launch services throughout its entire BTA/GSA at once. As a result, they explain, the size of the GSA/TIA of a BTA authorization holder calculated under the general rule may extend far beyond the area in which the BTA authorization holder's intended operations will actually have any impact. To address that kind of situation, the Coalition makes the following suggestions:

- If the BTA authorization holder is the Proponent, it should be permitted to reduce voluntarily the size of its GSA/TIA solely for purposes of any given transition process. For administrative convenience, and to reflect the fact that deployments are likely to occur based on the GSAs of incumbent MDS and ITFS licensees, the reduced GSA/TIA should be required to mirror the boundaries of any GSA of any incumbent MDS or ITFS licensee that is wholly within the BTA and should be established by having the BTA authorization holder certify to the Commission that it will not provide service outside of that particular GSA. Upon such certification, the Coalition would have the GSA/TIA deemed to be reduced in size for purposes of the particular transition; neighboring licensees with GSA/TIAs that do not overlap the resulting smaller TIA could be excused from the transition process. In the event a BTA authorization holder provides such a certification but subsequently decides to expand its service area, the Coalition would have us require the BTA authorization holder to invoke the transition process anew as to any licensees that were excused from the process as a result of the initial reduction in the GSA/TIA.[638]

- The Coalition says that a BTA authorization holder that is not the Proponent should only be a required participant and should only be considered for purposes of determining the other licensees that must participate in a transition process when the BTA authorization holder holds a license or conditional license for one or more facilities within the BTA. If it does not, then the BTA authorization holder should not be a participant in the transition process and its GSA/TIA should be ignored for

[637] *Id.,* Appendix B at 12-13 n.34.

[638] *Id.*

purposes of determining which other licensees are required parties to the process.[639]

- If a BTA authorization holder that is not the Proponent does hold a license or conditional license for one or more facilities within the BTA, says the Coalition, our rules should deem it to have separate TIAs defined as 35-mile-radius circles centered at each of its transmitting stations and/or response station hubs.[640]

6. As the Coalition envisions the process, a Proponent would institute a transition for a particular market in which the following nearby licensees (even those that are not cochannel or first adjacent channel) would be required participants:

- Every licensee that has not previously been transitioned and that has a TIA that overlaps the GSA in which the contemplated base station will be located; and

- every non-transitioned licensee with a TIA to which any of the contemplated facility's transmission antennas will have an unobstructed transmission path calculated assuming receive antenna heights of 9.1 meters above ground level and employing a smooth earth with 4/3 earth curvature propagation model; and

- every non-transitioned licensee with a GSA that overlaps the GSA of a license being transitioned pursuant to the first two conditions listed above.

Moreover, says the Coalition, no operations of a new or modified base station should be permitted in the low-power channels (even if the underlying license has transitioned) unless the same three categories of nearby licensees are transitioned by the licensee to the new band plan.[641]

7. In addition to the above-listed mandatory parties to the transition process, the Coalition argues that a Proponent should be permitted, at its sole discretion and at any time, to trigger the transition process with respect to any MDS or ITFS licensee that has a GSA located in whole or part within 150 miles of any portion of its GSA. Beyond that, they recommend that any transition should also include any license with a GSA overlapping a GSA being transitioned. Granting this right to Proponents, they contend, would serve a variety of needs, the most important of which is the need to address the possibility that if left in place outside the high-power band, high-power, high-site operations would interfere with the ability of cochannel cell sites that are placed above the ground clutter to receive low-power signals from consumer equipment.[642]

8. The Coalition urges that any licensee identified for transition under these policies should be required to participate in the transition process. However, they emphasize that we should not adopt a requirement that those who participate in the transition process must necessarily be transitioned to the new bandplan upon completion. First of all, they argue that any multichannel video programming distributor that was using more than seven MDS/ITFS channels for the transmission of digitally compressed video programming to subscribers, and any other MDS or ITFS station that is collocated with

[639] *Id.*

[640] *Id.*

[641] *Id.,* Appendix B at 12-13.

[642] *Id.,* Appendix B at 13.

it, should be allowed to opt out of the transition process.[643] For other stations, the Coalition says that many of the recoverable costs involved will be unknown to the Proponent at the time it issues a transition notice and that one of the purposes of the transition planning period should be to provide the Proponent an opportunity to identify all of the recoverable costs it will be responsible for should the transition occur. The Coalition says we should allow the Proponent at any time during the transition planning period to decide not to proceed with the transition due to transition cost considerations, and that the Proponent should be allowed to make that decision in its sole discretion. They further argue that the Proponent should be allowed to terminate the process in whole or in part with respect to any licensee that it voluntarily brought into the process and any other licensee that is required to be a participant solely because of a GSA overlap with the licensee voluntarily brought in by the Proponent.[644]

9. The Coalition notes that a Proponent will not be able to determine the TIAs of ITFS stations based on Commission records because the Commission does not maintain ITFS reception site records of the sort necessary to determine eligibility for replacement downconvertes. They say that a Proponent will only be able to determine fully the TIA of an ITFS licensee by securing the necessary information from individual ITFS licensees. Therefore, they say, prior to the commencement of any transition process any potential Proponent should be permitted to serve upon any ITFS licensee at its address of record in the Commission's licensing database a pre-transition data request to elicit this information. They say we should require that such requests include the Proponent's full name, postal mailing address, contact person, email address, phone and fax number, and that the recipient of the request provide the potential Proponent with a listing that identifies the location (by street address and, if known, geographic coordinates) of every constructed ITFS reception site that, as of the date of receipt of the request, would be entitled to a replacement downconverter upon transition. In addition, they say, the listing should indicate whether the downconverter is mounted on a structure attached to the building or on a free-standing structure, and the approximate height above ground level of the downconverter. They say that, if known, the response should also specify the adjacent channel D/U ratio that can be tolerated by any receiver(s) at the reception site. Finally, they say we should require that the response identify the number of ITFS video programming or data transmission tracks the ITFS licensee is entitled to receive in the high-power band and whether the ITFS licensee will accept fewer tracks in the high-power band. They say that the response should be considered a representation not only to the potential Proponent, but also to the Commission, and should be sent by certified mail with return receipt requested, courier, overnight delivery, or other service that provides evidence of receipt. They say we should require that the recipient provide the requested information to the potential Proponent by any delivery service that provides evidence of receipt no later than 21 calendar days after delivery of the request.[645]

10. The Coalition goes on to recommend that, in the absence of a timely response, we should require the potential Proponent to make at least two attempts to contact both the licensee by telephone during normal business hours to ensure receipt of the request. They further recommend that, if the potential Proponent makes contact with the licensee and the licensee requests additional time to respond, we should allow the licensee an additional fifteen calendar days to respond. In the absence of a response, they say, the potential Proponent should be permitted to proceed with the transition without having to provide for the migration of any of the licensee's programming tracks to the high-power band, without

[643] Coalition Supplemental Proposal, filed November 14, 2002, at 4-5; Coalition Proposal at Appendix B, 16-18.

[644] *Id.,* Appendix B at 14.

[645] *Id.,* Appendix B at 14-15.

replacing any of the licensee's downconverters, and with the unrebuttable presumption that the ITFS licensee's TIA is coterminous with its GSA unless the licensee subsequently provides the requested information to the Proponent before the end of the transition planning period and the Proponent is able to use that information as part of the transition process without prejudice to other parties and without significant additional expense to the Proponent.[646]

Planning the Transition

11. The Coalition advocates that we impose a basic procedural structure to the transition planning process. It proposes that no later than 30 days before conclusion of the transition planning period, we should require the Proponent to provide participants with a written plan for implementing the transition (the "Transition Plan"). They say we should require that the Transition Plan be sent by certified mail with return receipt requested, courier, overnight delivery, or other service that provides evidence of receipt. They maintain that the Transition Plan should identify the call signs of the stations that will transition to the new bandplan, the specific channels that each will receive following the transition, the reception sites at which replacement downconverters will be installed, the video programming and data transmission tracks that will be migrated to the new high-power band, the technical configuration of the high-power facilities, and the approximate time line for effectuating the transition and ceasing operations pursuant to the current band plan. They say that the Transition Plan should also provide for the establishment of an escrow or other appropriate mechanism for ensuring completion of the transition in accordance with the Transition Plan.[647]

12. The Coalition says that each of the other participants should be permitted to submit a written counterproposal that would have to be received by the Proponent no later than ten business days before the conclusion of the Transition Planning Period. If the Proponent receives a counterproposal, under the Coalition's plan the Proponent would have three options:

- First, the Proponent would be permitted to accept the counterproposal and proceed accordingly.

- Second, the Proponent would be permitted to invoke dispute resolution procedures for a determination as to whether its proposed Transition Plan is reasonable and take no action to implement the Transition Plan until a determination as to the reasonableness of the Transition Plan is made.

- Third, they say, the Proponent should be allowed to invoke the dispute resolution procedures for a determination as to whether its proposed Transition Plan is reasonable but, instead of awaiting a ruling, implement the counterproposal immediately. To do so, the Proponent should be required to file copies of the Transition Plan and counterproposal with the Commission and advise the Commission that it is electing to proceed with the provisions of the counterproposal under protest. The Proponent would then be free to implement the counterproposal. If the counterproposal is implemented pending dispute resolution, and the Transition Plan ultimately is found to be unreasonable, the Proponent should be required to reimburse the party that submitted the counterproposal for the fees and expenses arising out of the dispute resolution process (including the fees and costs of the arbitrator(s), and reasonable legal and engineering fees and expenses). The Coalition says that, if the counterproposal is implemented pending dispute resolution, and the Transition Plan ultimately is found to be reasonable, the party that submitted the counterproposal should be required to reimburse the Proponent for those

[646] *Id.,* Appendix B at 15.

[647] *Id.,* Appendix B at 20.

additional documented costs incurred by the Proponent that were (i) over and above what the Proponent proposed in its Transition Plan, and (ii) directly related to implementing the counterproposal. This approach, they say, will assure that licensees do not create a dispute merely to frustrate a transition and/or force the payment of greenmail.[648]

Physically Shifting Educational ITFS Programming Tracks to New Channels and Outfitting Eligible ITFS Reception Sites with Improved Downconverters

13. The Coalition transition plan requires MDS licensees to pay their own expenses to transition to its proposed band plan. However, to implement the objective of protecting those ITFS licensees that choose to continue traditional high-power, high-site downstream video and data distribution systems against interference from LBS and UBS cellularized operations, the Coalition recommends that the Proponent be required, at its cost, to satisfy two fundamental responsibilities: (1) installing at eligible ITFS receive sites improved downconverters designed to limit the reception of potentially-interfering signals from outside the MBS; and (2) physically shifting every ITFS video programming or data transmission tracks currently being transmitted to appropriate transmission facilities operating on MBS channels. The intent is that the Proponent will bear all equipment, installation and other direct costs incurred to provide for the continued reception of the ITFS video programming and data transmission tracks at the eligible receive sites.[649]

Terminating Existing Operations in Transitioned Markets That Do Not Comport with the New Rules

14. Once the transition process is complete, licensees in the market will hold spectrum called for under the plan and be subject to the new rules.[650] The Coalition says that, in the process of transitioning the nation to the new bandplan, some licensees will be required to cease their current service offerings before they are in a position to launch new services under the new bandplan. They say that it may be necessary for licensees in one market to cease high-power, high-site operations in the LBS and UBS in order to avoid cochannel interference to next generation operations in markets quite some distance away. The Coalition says that the only build-out requirement under such circumstances should be that a licensee demonstrate substantial service at the expiration of its license. Thus, says the Coalition, licensees who have yet to construct facilities should not have their authorizations jeopardized by a failure to construct during this transitional period but should instead be judged under the "substantial service" standard that is applied to other services regulated by the Wireless Telecommunications Bureau. If the Commission chooses to apply Section 27.66 or some similar rule regarding the discontinuance, reduction or impairment of existing service, says the Coalition, the Commission should clarify the application of that rule to the MDS/ITFS transition process. Specifically, the Coalition proposes that the Commission issue a blanket waiver of that rule for all MDS and ITFS licensees, require the filing of a notice when service is commenced by a transitioned licensee operating under the new bandplan and thereafter apply the rule to that licensee in accordance with its terms. In this manner, they say, MDS and ITFS licensees will be able to smooth the transition process without fear that licenses will be jeopardized as stations cease operations to facilitate the transition. In addition, the Coalition says we should clarify that when a

[648] *Id.,* Appendix B at 20-21.

[649] Coalition Proposal Appendix B at 5-11. A number of MDS licenses contend that all MDS and ITFS licensees shoulds be required to transition at their own expense. *See* MMDS Licensee Coalition comments at 3.

[650] See Coalition Proposal, Appendix B for a more detailed description of the transition process.

licensed MDS or ITFS channel is used as a guard band rather than for transmissions, no filings will be required to safeguard the license for the channel being utilized as a guard band.[651]

Response Channels

15. As noted above, the seven 125 kHz response channels (part of the R channels under the Coalition band plan) associated with MDS channels E3, E4, F3, F4, H1, H2, and H3 were allocated to the Private Operational Fixed Service (POFS). The Coalition proposes to return these channels for MDS use.[652] There are no POFS licensees currently on these channels. As the Coalition notes, the R channels taken from MDS licensees were never licensed as OFS channels, probably because they are too narrow to be usable by themselves. The Coalition contends that returning those channels to their original licensees, i.e., MDS operators, would enable them to accumulate the channels with other R channels, increasing the probability that the channels would be used.[653] On that basis, they propose to reallocate the seven response channels – 2686.9375, 2687.9375, 2688.5625, 2688.6875, 2688.9375, 2689.5625 and 2689.6875 – for MDS (broadband) use.

16. The Coalition recommends that operation on the response ® channels be secondary to operation on the LBS, MBS, and UBS channels. In other words, operation on the response channels would not be allowed to cause harmful interference to operations on the LBS, MBS, and UBS channels and would be required to accept any interference caused by an LBS, MBS, or UBS licensee operating in accordance with the Commission's Rules.[654]

Geographic Area Licensing

17. The Coalition argues that elimination of site-by-site licensing and adoption of a geographic area-licensing concept for low-power operations will promote deployment of advanced low-power systems because a site-by-site licensing system is cumbersome and the transaction costs are too high to permit competitive businesses to flourish using next generation technology.[655] It notes that high-powered, one-way operations could benefit from a streamlined site-by-site licensing approach.[656]

18. MDS auction winners already hold geographic service area ("GSA") authorizations. The Coalition proposes to give existing site-based MDS and ITFS licensees a geographic service area or GSA, based on the current rules.[657] Applicants for new stations on ITFS channels must provide protection to incumbents based on a Protected Service Area (PSA).[658] MDS incumbents that obtained their licenses

[651] Coalition Proposal, Appendix B at 4 n.9.

[652] Coalition Proposal at 12, n.30

[653] *Id.*

[654] Coalition Proposal at 31.

[655] *See* Coalition Proposal at 19.

[656] *Id.*

[657] Coalition Proposal at 20.

[658] 47 C.F.R. §§ 74.903, 21.902(d). An ITFS licensee's protected service area includes the area within a 35-mile radius of its transmitter site plus any reception sites beyond that radius that were registered with the Commission on September 17, 1998. Beginning on September 15, 1995, the initial service boundaries were (continued….)

prior to our 1996 MDS BTA auction have 35-mile PSAs around their main stations.[659]

19. The Coalition also proposes that we grandfather certain ITFS receive sites located outside the PSA.[660] Under the Coalition's proposal, ITFS licensees must provide technical information to co-channel and adjacent channel licensees concerning the receive sites within twenty-one days of a request.[661]

20. In discussing the issue of a protected area for incumbents, the Coalition points out that the rules defining a protected area have changed over the years. As a result, the protected service areas assigned co-channel incumbent MDS and ITFS licensees can overlap.[662] The Coalition argues that since none of the licensees with service areas that overlap can satisfy the interference protection criteria in the overlap area, no one can operate in these areas.[663] According to the Coalition, the MDS/ITFS industry has informally developed a method for handling this problem. The Coalition notes that the general method for dividing the overlap area is to draw a straight-line (chord) beginning and ending at the two points where the protected service areas intersect.[664] This approach has the effect of drawing a boundary along the line connecting the ends of the football-shaped overlap area, with the licensees on either side agreeing to limit the interference they generate outside their boundaries. The Coalition proposes that we codify this approach.

Treatment of Incumbent Licensees

21. The Coalition would have the transition proceed on a market-by-market basis, triggered by Proponent offers to compensate incumbents for changing their operations from high-power to low-power. Rather than apply a deadline, the Coalition describes nine "safe harbors" – offers that incumbents would be required to accept if Proponents offer them.

22. The Coalition says that implementing market transitions should be a relatively simple process where all of the 2.5 GHz channels are collocated and operating with matched technical parameters and all of the ITFS licensees are using just one 6 MHz channel for the transmission of

(Continued from previous page)

frozen, i.e., the circular PSA boundaries were not to be changed regardless of whether or not the licensee subsequently moved its transmitter. *Id.*

[659] *See* 47 C.F.R. §§ 21.902(d), 21.933(a).

[660] Coalition Proposal at 35.

[661] ITFS licensees must identify the location of such receive sites, the antenna make and model and the antenna height above ground and, if known, the adjacent channel D/U ratio that can be tolerated. *See* Coalition Proposal at 35-36.

[662] Effective September 15, 1995, the Commission expanded the protected service areas of incumbent site-based MDS and ITFS licensees from fifteen miles to thirty-five miles. Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service, *Second Order on Reconsideration*, 10 FCC Rcd 7074 (1995). In doing so, it created a number of overlaps between licensees whose PSAs had not overlapped before the standard PSA radius was increased.

[663] Coalition Proposal at 20-21 (*e.g.,* the rule changes have created a "no man's land").

[664] *See* Coalition Proposal Appendix A for a detailed explanation.

educational programming but that there will be situations that deviate from that standard. To minimize disputes between Proponents and licensees in such cases, they say, the Commission should establish a series of safe harbors that will allow Proponents to craft Transition Plans with the knowledge that they will be deemed reasonable in the event of a dispute. They recommend that we adopt the following safe harbor definitions and deem them to be reasonable Transition Plan provisions that can be offered by a Proponent and implemented absent agreement from affected licensees.[665]

- *Safe Harbor # 1* As is discussed above, the default high-power channel assigned each channel group generally will be authorized to operate after the transition with the same transmission parameters (coordinates, antenna pattern, height of center of radiation, EIRP, etc.) as the current downstream facilities authorized for the channel group. However, the Coalition says that situations are likely to arise where minor changes to the operating parameters are necessary to accomplish the transition. They say that neighboring cochannel or adjacent channel licensees should not be permitted to object to any change from the default configuration so long as either: (1) the change is not a major modification under the new high-power rules; or (2) the change is a major modification and the Transition Plan calls for the appropriate application for Commission consent to be filed, for it to be processed in accordance with the procedures assuring public notice and an opportunity to object, and for it to be granted prior to implementation. They say that the ITFS licensee being migrated should not be permitted to object to a Transition Plan that proposes affording the ITFS licensee with post-transition operating equipment that is as good as or better than that used before the transition. Provided that the Proponent is not proposing a change in the geographic coordinates of the facilities (other than as necessary to conform the actual location with the Commission's Antenna Survey Branch database) and provided further that the minimum D/U benchmarks discussed above will be achieved, they say, the Proponent should be permitted in the Transition Plan to propose:

    - An increase in the height of the center of radiation of the transmission antenna or a decrease in such height of no more than 8 meters (provided that such change does not result in an increase in antenna support structure lease costs to the ITFS licensee and the consent of the owner of the antenna support structure is obtained).

    - A change in the EIRP of the transmission system of up to 1.5 dB in any direction.

    - Digitization, which is discussed in more detail below in Safe Harbor # 3, precision frequency offset, or other upgrades to the ITFS transmission or reception systems that allow the Proponent to invoke more advantageous interference protection requirements applicable to upgraded systems.[666]

- *Safe Harbor # 2* The Coalition says that, in some cases, prior to the transition, an ITFS licensee may have channel-shifted its single video programming or data transmission track to spectrum licensed to another licensee. Under the transition rules, they note, that track must be on the high-power channel licensed to the ITFS licensee upon completion of the transition. For example, the A Group licensee might have shifted its ITFS video programming to channel C1. If one of the A Group channels is currently licensed with technical parameters substantially similar to those of channel C1, we should allow a Transition Plan to call for high-power channel A4 to be licensed

[665] *Id.,* Appendix B at 21.

[666] *Id.,* Appendix B at 21-22.

with the same technical parameters as current channel C1. However, if the current A Group channels are licensed to operate with technical parameters materially different from those of channel C1, the Proponent should have two options. First, it should be allowed to arrange a channel swap with the licensee of the C Group so that the A Group licensee will receive high-power channel C4 (which will automatically be licensed with the same transmission parameters as current channel C1) in exchange for channel A4. Second, the Proponent should be allowed to arrange for high-power channel A4 to operate with transmission parameters substantially similar to those of current channel C1 (see Safe Harbor # 1).[667]

- *Safe Harbor # 3* The Coalition says that, where an ITFS licensee would be entitled to two or more video programming or data transmission tracks in the high-power band, absent agreement prior to or during the Transition Planning Period to the contrary, we should allow the Proponent two options:

    - First, we should allow the Transition Plan to call for migration of one of those programming tracks to the ITFS licensee's default channel in the high-power band segment (*e.g.,* channel A4 in the case of the A Group licensee) and provide the ITFS licensee an additional 6 MHz channel in the high-power band for each additional ITFS video programming or data transmission track. If the Proponent chooses this option, we should require it to assure that the additional high-power channels will be able to operate with transmission parameters substantially similar to those of the channel(s) on which the ITFS video or data tracks were broadcast before the transition (see Safe Harbor # 2). In exchange, the contributor of each additional high-power channel would be entitled to one of the recipient ITFS licensee's channels in one of the low-power bands for each additional high-power channel provided. They say we should allow the additional high-power channels for this purpose to be ones that would have been licensed to the Proponent under the default system, or be made available by way of channel swapping arrangements with other licensees in the market orchestrated by the Proponent. The Coalition says that the channels the contributor receives in exchange for its high-power channel should be located at one of the ends of the recipient ITFS licensee's default allocation, rather than in the middle.

    - In the alternative, they say, we should allow the Proponent to exercise the power of calling for the installation of digital compression technology to transmit multiple tracks on the licensee's default high-power channel(s). In any case where the licensee's existing tracks are provided on only one channel using digital compression, however, the Proponent should be required to install digital compression technology on a single channel.[668]

- *Safe Harbor # 4* In some cases, multiple licensees currently share a channel group, with each licensed individually to one or more channels. The Coalition says that, if the licensees are either MDS licensees or ITFS licensees who do not choose to migrate programming to the high-power band and those licensees are unable to reach agreement with each other on the post-transition licensing of channels, we should allow the Proponent's Transition Plan to provide for the licensing of the spectrum in each segment on a pro rata basis (with channel(s) in each segment

[667] *Id.,* Appendix B at 22-23.

[668] *Id.,* Appendix B at 23-24.

being disaggregated when and if necessary to provide each licensee with its pro rata share of the spectrum in each segment). If the multiple licensees are ITFS licensees and each is entitled to video programming or data transmission tracks, as in Safe Harbor # 3, they say, the Proponent should have two choices absent agreement otherwise:

- First, the Proponent should be allowed to secure for each licensee its own 6 MHz high-power channel in exchange for low-power channels assigned to the group. Following the channel swap(s) necessary to secure those additional high-powerchannels, we should allow the Transition Plan to provide for the licensing of the remaining channels in the low-power band segments and response channels on a pro rata basis (with channel(s) in each segment being disaggregated when and if necessary to provide each with its pro rata share of the spectrum in each segment).

- Second, the Coalition argues, we should allow the Transition Plan to call for pro rata segmentation of the default high-power channel for the group, provided that the Proponent commits to provide each of the licensees with the technology necessary for its ITFS video programming or data transmissions to be digitized, transmitted and received utilizing the provided bandwidth. Under this approach, the low-power channels would be divided among the sharing licensees on a pro rata basis (with channel(s) in each segment being disaggregated when and if necessary to provide each with its pro rata share of the spectrum in each segment). If only one of the sharing ITFS licensees elects to migrate video programming or data transmissions to the high-power band, we should provide that the default high-power channel assigned to that channel group be licensed to that licensee. The remaining spectrum assigned to the group should be allocated among the licensees on a pro rata basis, with the 6 MHz in the high-power band counting against that licensee's portion. To the extent necessary, they say, we should provide that the low-power spectrum could be disaggregated when and if necessary to provide each licensee with its pro rata share of the spectrum in each segment. If the one licensee that elects to migrate ITFS video programming transmits multiple ITFS video programming tracks, they say, the options identified in Safe Harbor # 3 should be available to the Proponent to satisfy its migration obligations. We should further provide that, if the proponent chooses to effectuate a channel swap to provide more than one channel in the high-power band, they add, the remaining channels assigned to the group (after considering that one or more low-power channels and associated Transition Band channels will have been swapped away to provide the additional high-power channel) could be allocated among the licensees on a pro rata basis (with channel(s) in each segment being disaggregated when and if necessary to provide each with its pro rata share of the spectrum in each segment).[669]

- *Safe Harbor # 5* Cases may arise in which, prior to the transition, the ITFS licensee of a single four channel group was operating some channels from one location and the other channels in the group from a second (or a third, or a fourth location). The Coalition says that, if the simultaneous ITFS video or data tracks are being transmitted from only one location, we should provide that the technical parameters of that location will govern the high-power license. If ITFS tracks are being transmitted from multiple locations, they say, we should require that the Proponent provide for the post-transition transmission of the appropriate number of ITFS tracks at each such location. They say we should consider the Transition Plan to be considered reasonable if it calls

[669] *Id.,* Appendix B at 24-25.

either for the licensing of a separate high-power channel at each location (in which case spectrum in the low-power band would be swapped) or if it calls for the split-licensing of the default high-power channel at multiple locations.[670]

- *Safe Harbor # 6* The Coalition says that, although Transition Plans should generally be designed to minimize the amount of time ITFS transmissions will have to cease, some disruption is inevitable. For that reason, they say that a Transition Plan should not be considered unreasonable if it calls for interruptions in ITFS transmissions, so long as those interruptions are limited to a period of seven or less consecutive days at any reception site. However, they add, we should require the Proponent to coordinate with each ITFS licensee to minimize the extent of any disruption. We should allow the Transition Plan to call for the shifting of an ITFS licensee's program to alternative channels, and such shifting should not be considered an interruption so long as the ITFS licensee's receive sites are equipped to receive and internally distribute the channel to which the programming is shifted.

- *Safe Harbor # 7* The Coalition says that a Proponent may determine that interference from transmissions in the high-power band to operations outside the high-power band can be mitigated by the installation of an appropriate filter on the high-power transmitter. In such case, they say, we should require the licensee operating the high-power transmitter to accept any filter proffered by the Proponent as part of a Transition Plan or thereafter and to cooperate reasonably with installation of that filter, as long as the Proponent can demonstrate that the installation of such a filter would not unreasonably degrade the performance of the licensee's system. If installation of the proposed filter would not cause a delta group delay of more than 100 nanoseconds for analog operation or more than 20 nanoseconds for digital operation, says the Coalition, we should not deem the installation of the filter to be unreasonably degrading the performance of the system. They argue that we should require the Proponent to supply technical information regarding the proposed filter to the high-power licensee to allow the high-power licensee to make that determination.[671]

- *Safe Harbor # 8* The Coalition notes that, in some cases, the facilities being transitioned will be used by a commercial multichannel video programming distributor ("MVPD") that either is not eligible for the opt-out program proposed by the Coalition or has chosen not to avail itself of the opportunity. In such a situation, they say, we should deem a Transition Plan to be reasonable if it provides the greater of two years from the date of the filing date of the Coalition Plan (October 7, 2002) or six months from the Proponent's transition notice before the MVPD and its affiliated licensees are required to comply with the technical rules applicable to the low-power band segments. The Coalition say they recognize that compliance with such a rule may require modification to the MVPD system, which will have to be undertaken at the MVPD's cost except as they relate to the transition of ITFS programming to the new high-power band. They say that the time afforded by this safe harbor should provide an ample opportunity for the MVPD and its affiliated licensees to make the appropriate adjustments.[672]

- *Safe Harbor # 9* The Coalition notes that there will be situations in which an ITFS licensee uses

[670] *Id.,* Appendix B at 25-26.

[671] *Id.,* Appendix B at 26.

[672] *Id.*

one or more of its channels for studio-to-transmitter links. In such a case, they say, we should consider the Transition Plan to be reasonable if it provides for either of the following:

- the use of one of the low-power band segments for the point-to-point transmission of the ITFS video or data (through superchannelization of the licensee's contiguous low-power channels), provided the Proponent commits to re-tune the existing point-to-point equipment to operate on those channels or to replace the existing equipment with new equipment tuned to operate on those channels and the proposal complies with the low-power technical and interference protection rules;

- the migration of the ITFS programming to the high-power band by re-tuning the existing point-to-point equipment to operate in the high-power band or replacing it with equipment tuned to operate in the high-power band;

- the replacement of the point-to-point link with point-to-point equipment licensed to the ITFS licensee in alternative spectrum, so long as the replacement facilities meet the definition of "comparable facilities" set out in Section 101.75(b) of the Commission's rules.[673]

[673] *Id.,* Appendix B at 26-27.

APPENDIX D

LIST OF PLEADINGS

The following documents were filed in response to the *Public Notice:* Wireless Telecommunications Bureau Seeks Comment on Proposal to Revise Multichannel Multipoint Distribution Service and the Instructional Television Fixed Service Rules, RM-10586, 17 FCC Rcd 20526 (WTB 2002).

LIST OF PARTIES RESPONDING TO THE PUBLIC NOTICE

Comments

Adams Telecom, Inc.
Archdiocese of Chicago
Archdiocese of Detroit
Archdiocese of Hartford
Archdiocese of Los Angeles Education and Welfare Corporation
Atlanta Educational Services, Inc. and Atlanta Board of Education
Bellsouth Corporation et al.
Board of Trustees of the Leland Standard Junior University
Burns, Patrick J.
Caritas Telecomunications
Catholic Telemedia Network
Central Texas Communications Inc.
Clarendon Foundation
Clearwire Equipment, LLC
ClearwireTechnologies, Inc.
CNI Wireless, Inc.
Comspec Corporation
Counterpoint Communications, Inc.
Crowell & Moring
Dallas MDS Partners
Department of education Archdiocese of New York
Diocese of Dallas
Diocese of Orange
F Corporation
Illinois Institute of Technology
Independent & Wireless Video Operators
IP Wireless, Inc.
IT&E Overseas, Inc.
ITFS Parties
ITFS Spectrum Development Alliance
Kessler and Gehman Associates
Leano Rural Telephone Cooperative Inc.
Maui Sky Fiber, LLC
Michael Kelly Revocable Trust, d/a/a Shannondale Wireless
MMDS License Coalition
National Telecommunications Cooperative Association
Navini Networks, Inc.

Network for Instructional TV, Inc.
Nokia Inc.
Nucentrix Broadband Networks Inc.
Qualcomm Incorporated
Rioplex Wireless, Ltd
Roman Catholic Diocese of Rockville Centre
Sprint Corporation
The Alliance of Independent Wireless Video Operators
Texas State Technical College, Harlingen
University of Colorada
W.A.T.C.H. TV Company
Wireless Communications Association (WCA), National Instructional Television Fixed Service (NIA) and Catholic Television Network (CTN)
WH-TV, Inc. d/b/a Digital TV One
Winbeam, Inc.
Worldcom, Broadband Solutions, Inc.

Reply Comments
Intel Corporation
ITFS Spectrum Development Alliance, Inc.
Microsoft Corporation
Network for Instructional TV, Inc.
Nucentrix Broadband Networks, Inc.
NTELOS, Inc.
Polar Communications Mutual Aid Corporation
Sprint Corporation